

THE CULTIVATOR

THIRD

TO IMPROVE THE SOIL AND THE MIND.

[SERIES.]

VOL. XIII.

ALBANY, N. Y., DECEMBER, 1865.

No. 12.

The Cultivator & Country Gentleman.

PARTING WORDS.

A few valedictory words seem appropriate with the closing year, although we hope so soon again to renew our relations with the greater part of those from whom we now take a temporary farewell. And in resuming these relations, as we shall become a more frequent visitor than before, may we not also anticipate a correspondingly increased interest in the contents and circulation of our Journal,—more frequent contributions to its columns from the experience of our readers, and a revival of all the old zeal in inducing others to read, for the sake of the information disseminated and the improvement urged?

The change announced in our last has already met with a gratifying response from hundreds of our old friends, and with an almost unanimous expression of approval, even from those who regretted most that the volumes of THE CULTIVATOR, now in their possession, should lose their uniformity with those that are to come. "I have taken THE CULTIVATOR for *twenty one years*," writes a subscriber in Western New-York, "and think it has been worth *one hundred dollars* to me; and I would not now be deprived of the volumes for *twice their cost* as works of reference." Others give still higher estimates of the benefit already derived from its perusal. "I am much pleased with the change you propose," says one of our oldest agents in the river counties, "and shall enlist for the weekly as many as I can of the old subscribers. The new title is long, but colloquially we shall use only the first part of it, which brings us back to our old cherished name." And his letter is accompanied by a list of subscribers for the new volume.

Many other clubs, and still larger numbers of single subscriptions, have also been received, showing that in this change we have met the wants of the great body of our subscribers. It only needs that those who have as yet taken no active steps in the matter, should look around a little among our present readers, to secure them all, and many new ones, toward the list for 1866. [As a further instance of the reception with which our change is meeting in many localities, a list of *seventeen* subscribers for the Weekly for 1866 is received as we go to press, where there were only *two* subscribers for the Monthly for 1865.]

The new Number of the ANNUAL REGISTER for the coming year is now out, and will be as popular

as any of its predecessors, and as great an attraction to subscribers. Any of our present agents desiring a copy for use in *canvassing*, we shall be happy to supply without charge, and others can enclose the price to us (30 cts.) and deduct the same from the club remittance, when the list is sent in. Looking over the pages of this instructive work often goes farther in inducing a stranger to subscribe than any other argument, as it shows at a glance the general character of what may be expected in the paper itself.

A very neat and attractive hand-bill has also been prepared for the New Year, at a heavy expense under the present cost of paper and labor. It will be sent to many of our subscribers without special application, together with a prospectus for 1866; and may we not ask that these documents should be used to the best advantage by posting them up or circulating them where they will be most likely to receive notice?

In repeating below our Terms for 1866, a word or two as to the formation of clubs may not be out of place. The price for a single copy (\$2.50 per year) is less than that charged for any other Journal containing an equal amount of reading matter and published in a similarly expensive style, within our knowledge. But, as our circulation covers so wide a territory that it would be absolutely impossible to employ agents to traverse the whole country for us,—when any person takes the trouble to collect the subscriptions of others and send them in, in advance, with his own, there is a reduction in price, just as in any other business goods are sold lower at wholesale than at retail. This reduction was primarily intended to go to the agent himself to pay for the time, labor and postages involved; but it has come to be so generally the case that each member of a club should pay little if anything beyond the lowest club price, that now all are equal sharers in the saving thus effected and equally interested in enlarging the list. On our part the advantage of the arrangement only arises from the increase of circulation gained; so that if we refuse to send to less than a full club at club terms, as we are often obliged to do, it is because in that case we lose the whole benefit this concession is designed to accomplish. And to make up a club is not an affair that requires any special authorization or agency from us. All are invited to become voluntary agents, and it only requires a list of *fifteen* to secure one's own paper free of cost.

To encourage early subscriptions, we shall continue

to send the paper, weekly, as promised last month, from the time remittances for 1866 are received—thus giving the numbers for December free to all subscribing in season to receive them. There is no way in which the benefits of the change can be so well shown, or a comparison with other weekly journals so satisfactorily made, as by securing copies of the COUNTRY GENTLEMAN for the current month; and for these reasons, as already stated, we are eager to supply them to all the present subscribers of THE CULTIVATOR who feel sufficient interest to apply. Were not the cost of paper so extravagantly high—now higher absolutely than at any previous time since the war commenced—we should send to all, without waiting to be asked.

To those who have been, some of them upwards of thirty years, and many more for ten, fifteen or twenty—regular readers of our Monthly, we have to renew our expressions of appreciation for their long confidence and many substantial evidences of approval. Those who desire to complete their sets should send for missing numbers or volumes at an early day, as there are already some which cannot be obtained. The volumes from 1853 to the present time can most of them be furnished by mail, post-paid, at \$1.50 each, or by express at cost of purchaser at \$1.25—thus supplying the cheapest as well as the most comprehensive works on American agriculture accessible to the public. Single numbers wanting will be supplied at 10 cts. each.

As to the New Year, we have already made arrangements, and others are in prospect, for adding materially to the number of our special contributors, and voluntary correspondence is also solicited from all parts of the country. Both in contents and in illustrations our effort will be more than to sustain the past reputation of our works,—to keep them fully abreast with the progress of events,—to lead, rather than follow, public opinion, and never to be deterred by false hopes of popularity from expressing our own opinions with entire frankness on any subjects in which the Farmer's welfare is concerned—where he is in danger of being victimized, or in need of more light—whether these subjects are directly practical, scientific, legislative, or commercial, in their character.

Once more expressing the confident anticipation of soon enrolling on our new books the great majority of all those under whose eye these parting words shall come, we now proceed to repeat the Terms, &c., as published in our last:

Subscription Rates for 1866.

[Provided the order is in ALL CASES accompanied by the Cash.]

ONE COPY, one year,	\$2.50
FOUR COPIES, one year,	9.00
EIGHT COPIES, one year,	16.00
FIFTEEN COPIES, and one free to the sender of the List,	30.00

And any additional number of copies above eight or fifteen, at the rate of \$2 per year each.

Clubbed with the Annual Register of Rural Affairs.

ONE COPY, one year,	\$2.80
FOUR COPIES, one year,	10.00
EIGHT COPIES, one year,	17.60
FIFTEEN COPIES, and one of each free to the sender of the Club,	33.00

In a Club of Eight or more subscribers, if so desired, those not wishing the ANNUAL REGISTER may remit \$2 each, and those wishing it \$2.20 each. Clubs may go to as many different Post Offices as necessary.

Subscribers not Paying Strictly in Advance, will in all cases

be charged THREE DOLLARS per year. Subscriptions for less than one year will be taken at 25 cents per month.

Subscribers in the British Provinces remitting in the bills of specie paying banks, will be supplied with no extra charge for postage to the American lines. If remitting in United States currency however, 25 cents will be added to the above rates, for each yearly subscriber.

CHEAPNESS OF THE WEEKLY.—The weekly numbers of THE CULTIVATOR & COUNTRY GENTLEMAN are printed on a sheet of nearly the same dimensions as the present monthly issue, but in the form of a sixteen page quarto, instead of a thirty-two page octavo. In the year, *eight hundred and thirty-two pages* will thus be given, instead of 384 of about *half the size*; or more than four times the printed surface at about three times the price—\$2.50 per year instead of 80 cents. By printer's measurement the reading matter obtained by a year's subscription will exceed that of most of the Four Dollar Magazines!

DEPARTMENTS EMBRACED.—Among the subjects to which the columns of THE CULTIVATOR & COUNTRY GENTLEMAN are devoted, the following are the most prominent, and more or less space is occupied by them in every volume, and in nearly every number:

1. PRACTICAL FIELD HUSBANDRY—all the Crops and Processes of Improved Farming.
2. DOMESTIC ANIMALS—Breeds, Diseases, Fattening and Management.
3. THE DAIRY—Butter and Cheese—the POULTRY YARD and the APIARY.
4. HORTICULTURE—Fruits and Fruit Trees; Landscape Gardening; Arboriculture.
5. KITCHEN AND FLOWER GARDENING—all Edible and Ornamental Plants.
6. PROGRESS OF AGRICULTURE—Sales and Shows; New Implements and Inventions.
7. DOMESTIC ECONOMY—ENTOMOLOGY—RURAL ARCHITECTURE—BOTANY.
8. THE FIRESIDE—Natural History; Home Embellishment and Comfort; Miscellaneous.
9. RECORD OF THE TIMES—State of the Crops; News at Home and Abroad.
10. FARM PRODUCE MARKETS—Albany, New-York and Boston Prices.

TO THE PRESENT SUBSCRIBERS OF THE CULTIVATOR.—As an inducement to the circulation of the COUNTRY GENTLEMAN among our present readers, we will send it FREE FOR THE REMAINDER OF THE YEAR to all clubs made up now for 1866. And to those not prepared to subscribe at once, and thus become entitled to the free copies, as above, we shall be happy to send Sample Numbers without charge, both for their own examination and also for distribution among their friends and neighbors.

RESULT OF CONSOLIDATION.—It is believed that by the consolidation of THE CULTIVATOR with the COUNTRY GENTLEMAN, its circulation will be rendered larger as a *Weekly*, than it was as a *Monthly* in 1852, when the plan of the latter was laid down—notwithstanding the very greatly increased competition of the present times,—thus successfully accomplishing our own hopes—laying the foundation for still more effective labors and more satisfactory results in the future,—increasing our means of usefulness to the reader,—and perpetuating the time-honored name of THE CULTIVATOR in a form still more popular, and more highly valued, than it has ever worn before.

LUTHER TUCKER & SON.

Albany, N. Y., Dec. 1, 1865.

Vermont Ag. College.—The trustees of this institution have made their report to the Legislature, in which they recommend a plan for the organization, and a course of study for the College, and for its connection with the University at Burlington, to be called the University of Vermont and the State Agricultural College.

Making Cheese from the Milk of a Few Cows.

WM. B. JOHNSTON of Miami county, Ohio, desires simple condensed directions for making cheese in a private family where 16 gallons of milk are obtained daily.

We shall endeavor to comply with the request, though it may be remarked in the outset that full directions cannot be embraced in a brief article. The making of good cheese depends upon a skillful manipulation of the milk and curds, and it is greatly facilitated by having a good dairy or cheese-making apparatus. The small-sized vat and heater of W. Ralph of Utica, with its recent improvement for equalizing and distributing the heat through the milk and curds, is one of the best that has yet been invented. To make a nice quality of cheese, good rich milk is required, and during the process of manufacture a slow even heat should be studied in conducting operations. Presuming then that our correspondent has a good vat and heater, and that the night's and morning's meal of milk are added together in the vat, we commence operations. The milk is raised gradually to a temperature of 88° and a sufficient quantity of rennet put in and mingled with the milk to coagulate it in about 40 minutes. The rennet should have been previously prepared by soaking and rubbing three sweet healthy rennets in three gallons of water, and containing sufficient salt to keep it from tainting. The skins after having been rubbed out and soaked for several days, may be taken out and the liquor strained and bottled. Its strength should then be tested, and if good old skins have been used, a half tea cup or less will be enough to curdle the milk. The coagulation of the milk having been perfected (which is determined by lifting a portion of the curd with the finger, when it should readily split apart, showing a clean fracture,) then cut the curd lengthwise and again crosswise of the vat, leaving it in perpendicular columns, say half an inch thick. In the best dairy districts a curd knife, composed of a gang of long thin blades, double edged and one-quarter inch apart, is used.

The curd is then left at rest some 20 minutes, or until it settles and the whey begins to look clear. Then a gentle heat is begun to be applied, and the curd very carefully lifted and the columns broken with the hands. This part of the operation should be done very gently and carefully, otherwise the oily particles will be worked off. The application of heat should be very slow, and very little manipulation is required in breaking beyond keeping the curd from packing at the bottom of the vat. When the mass indicates a temperature of 92°, shut off the heat and let the mass stand 30 minutes or more, occasionally gently lifting or stirring the curds to keep from packing. At the expiration of that time start the heat and raise to 95°, the curd being stirred gently, as before, to keep from packing. It may now stand another 30 minutes with only occasional stirring, when heat is again applied and the mass raised to 100°. No more heat, or at least this is the highest point to which it should be raised. After standing an hour or more, if the curd does not harden up, nor the whey begin to show a little acid smell, and the temperature has fallen a little more heat may be applied, but not

to raise it above 100°. We should remark that in coolish weather a cloth should be thrown over the vat, when the curds are remaining at rest, to prevent heat from passing off.

To make a nice flavored cheese, the whey near the close of what is termed "cooking the curd," should have a little acid odor. It then should be drawn off, and the curd if right will have an elastic feel, and on taking a handful and compressing it, will on opening the hand readily fall again in pieces. Some dairymen try it between their teeth, and if the curd squeaks it is in condition to whey off. Where a vat is used, the whey being drawn and the water removed from under the vat, the curd is drawn to one end and worked over, so as to facilitate drainage, the vat also being canted up. Sixteen wine gallons of milk, well handled, will make about 16 pounds of curd, and after it is worked over and properly drained, and cooled, say to 86°, nice fine salt is worked in at the rate of 2½ pounds to 100 of curd. Some use 3 pounds of salt for 100 of curd. After the salt is properly incorporated through the curd, it is at once dipped into the hoop and put to press. For a 16 pound cheese, a hoop about 10 inches in diameter may be used. If it is desired to have a larger cheese, a 15-inch hoop may be taken, and the curds of two days put together. The manner of doing this is as follows: Press the first day's curd, and let it remain in press till the following day, when the hoop is slipped off and a thin rind from the upper side of the cheese trimmed off with a sharp knife, the edges of the cheese also being pared off. The top is then scarified with a fork, and the cheese returned to the hoop in a clean cloth. On this the new curd is placed, and the whole put to press. In a couple of hours it is taken from the press, bandaged and turned, and again put to press until the following morning, when it is taken to the dry-room and the top and bottom oiled with whey butter.

Where there is no convenient dairy apparatus for use, the milk may be strained in a tub. For heating, place a five pail kettle upon an arch or stove and have a large tin vessel made in the shape of a tin pail to set in the kettle, so as to be surrounded with water. A portion of the milk is dipped into the tin vessel, which should always be surrounded with water while being heated, and the milk raised to the desired temperature by being returned backward and forward in the tub. And so in heating up the whey and curd (a strainer being thrown over the tub) the whey is dipped into the tin vessel, and then back again to the tub, and the various degrees of temperature as described effected in this manner. When a tub is used, a rack and sink is needed to properly drain the whey from the curd. Coloring matter is now generally used in the dairy districts. It adds nothing to the flavor or quality of cheese, but makes it look richer. A nice article of carbonized liquid annatto can now generally be had at the shops for coloring the milk—or the crude annatto may be cut with lye and strained through a cloth. A quantity then may be added to the milk at the time of putting in the rennet, sufficient for any desired shade for the cheese to assume.

We have given here briefly the process of making first-class cheese. The whole art cannot be explained in one short article, but if the above outlines are followed, a little experience will in a short time enable the "new beginner" to make good cheese from a few cows.

ROGERS' HYBRIDS.

MESSRS. EDS.—Having seen in your paper frequent allusion to the above grapes, particularly in your number for Oct. 19, a correspondent from Ithaca (S. J. P.) induced me to venture a few words regarding these Hybrids. I had the privilege of first drawing attention to these, in our Essex Ag. Society transactions, having fruited a few of these varieties. Since then I have had constant opportunity to see them grown in our city and vicinity, and I am confident that they are destined to be the best large-sized grapes for out door culture in our country. Many of his numbers are rather late for New-England, but where the Catawba will ripen these will mature perfectly. Nos. 15, 4 and 19 are the most popular here, but No. 1, which has the past season been good with us, and has, from the past season's experience, south of New-England, been in good repute. Orders have been general for this number. No. 45, which Mr. Rogers considered too late for our locality, has, the past season, proved to be a superior large grape of the color of No. 15—the berry and bunch nearly, or quite, twice the size of the Catawba. I am inclined to think that this No. will prove to be the best wine grape of our country—it has but little pulp. This number has not as yet been sent out. At the Essex Agricultural Society Exhibition at Lawrence, Mass., Nos. 15 and 19 were shown from Haverhill, grown upon that warm and loamy soil, characteristic of the shores of the Merrimack river, to which I could apply the words of your correspondent, in a recent issue of your paper, that "they carried the day by storm." We were entirely eclipsed, none of us here (Mr. Rogers not excepted,) ever saw such bunches so well shouldered, and I fancy that those grapes, named in your last week's paper, as having been sold in Boston at \$1 per lb., were from Haverhill. Nos. 9, 43, and some others, have ripened finely with us the past season.

Salem, Mass.

J. M. IVES.

LARGE VEGETABLES.

We of New-England, though dwellers among the rocks and the hills, are not content that our farmer brethren of the West, with all their great advantages of a virgin prairie soil, should bear the palm alone in vegetable culture. The influence of a near market, the high price of land and of labor, stimulate us to develop the capabilities of our soil to the utmost; and if that soil be sienitic, its mineral constituents made by the decomposition of the bed rock, and rests on a hard-pan bottom, the capabilities of such a soil are not meagre.

Several of my tomatoes this season have weighed over two lbs., one being sufficient to heap a quart measure. Many ears of my sweet table corn have weighed over two lbs. each as gathered. One mangold wurtzel weighed twenty-seven lbs., and one blood turnip beet weighed twenty-eight lbs. This latter came up after the first hoeing; it was very symmetrically formed, fifteen inches in diameter, and just about equal to the filling of a half bushel measure, heaping full. One cayenne pepper plant had about 100 ripe peppers on it, looking sufficiently elegant for a parlor ornament; and one squash pepper plant had twenty ripe peppers on it, each as large as a good

sized tomato. Our cabbages grow to weigh thirty, forty, fifty, sixty and even seventy lbs., each. This is the way we sometimes do things in "barren" New-England. Having the right kind of seed, the great secret for success in the cultivation of vegetables, is to plant in soil that has been greatly enriched by previous years of high cultivation.

Marblehead, Mass.

J. J. H. GREGORY.

WATER-PIPES.

Several questions on the subject of pipes for conveying water having appeared in the COUNTRY GENTLEMAN, the following may be acceptable:

Wrought iron pipe is not sufficiently durable to be an economical water conveyer. Lead is now too expensive. Cast-iron pipe is entirely satisfactory where the water is a little hard, but is soon choked with tubercles in soft water; cost of 1½ inch pipe about 25 to 30c. per foot. The most perfect is probably the wrought iron and cement pipe of the Jersey City Company; price of one-inch pipe 35 cents per foot. Unglazed drain-pipes are not fit for this purpose; but glazed earthenware or terra cotta, the joints made with cement, answer perfectly, when the head on them is not great. If of good quality a two-inch pipe ought to stand a head of 20 feet, but its use in such cases is not recommended unless made especially for the purpose. Cost of two-inch pipe about 13 cents a foot.

Wooden pipes will last many years in a clay soil, where they will be constantly wet, but in sandy or gravelly soils they are not durable. H. H. Babcock of Watertown, in your State, advertises them at prices from \$1 to \$1.75 per rod for sizes from 1 to 2 inches.

The farmer should be careful that his water-pipes are laid with the same kind of slope throughout, that is, a slope always ascending if from a ram or force-pump to the house, or descending when flowing from spring to a cistern.

H.

HOW I RAISE MY FALL PIGS.

When the pigs are two weeks old, I put the sow and pigs in the pen or yard with the fattening hogs, allowing them, of course, to have all the swill and corn they can eat. Ordinarily, however, I boil potatoes and pumpkins, with a liberal seasoning of meal, for the first two or three weeks of feeding, which is better for the sows than corn. In the mean time have a hole in the pen large enough for the juveniles to go through, and there provide a side dish for them of sweet milk, with a little meal or shorts added to it. In case you do not have milk enough for the sows and pigs both, give to the latter by all means.

Previous to the setting in of the cool weather, they should have access (both old and young,) to a grass-plot, but after hogs get fleshy and are full fed, they will eat but little grass.

By the way, it is surprising how small a grass-plot will suffice for swine; often they have been fed upon it for a year or two, and it has once become fully enriched by feeding on it. The writer has the present season kept six and seven full-sized hogs on a plot of a trifle over an eighth of an acre, and for the most part the feed has been good.

W. J. PETTEE.

Salisbury, Ct.

SIMPLE LEVEL.

In order to construct this kind of levelling instrument, take a piece of wood, (*ab*) fig. 1, about one inch thick and three feet long. Place it on the

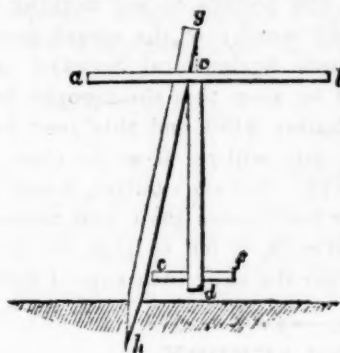


Fig. 1.

upper side, bore a hole through the middle of it at *c*, and drive a stick, *cd*, about three feet long, through that hole, making thus something like a T square.

Drive through a hole made at the lower part of *cd* and in the same direction as *ab*, an iron rod, *ef*, weighing about one pound. This is the level.

Take a stick, *gh*, sharp at one end, about four feet long, and hang the level to it by means of a short string passing through a hole at the middle of *ab*.

To set this instrument right, drive the stick *gh*, fast into the ground; send a man with a rod about twenty-five feet from you; let him hold it perpendicularly, hang the level on the stick, direct *ab* against the rod, and let the man rise or lower a strip of paper until one of its edges comes at *i*, fig. 2, in the direction of *ab*. Mark on the rod the point *i*. Turn the level end for end, and mark on the rod in the direc-

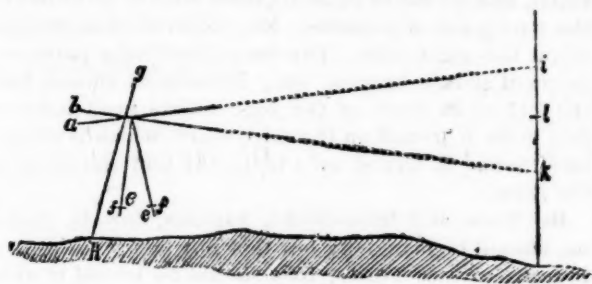


Fig. 2.

tion of *ba*, the point *k*, which is obtained in the same manner as the point *i*. Place one of the edges of the paper at *l*, midway of *ik*, and move the iron bar, *ef*, backward or forward, until the sight along *ab* strikes the point *l*. Then will the upper side of *ab* be a level line, and this instrument can be used for levelling purposes. The instrument will be in order if a point in the direction of *ab* will remain in that of *ba* when *a* *b* is turned end for end.

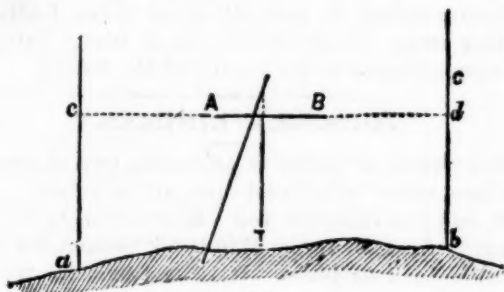


Fig. 3.

To level with this instrument, that is to find the height of a point above another, place the instrument between the two points; place a rod on one of the points, (*a*) for instance, (fig. 3,) and mark the point (*c*) where the sight along *AB* meets the rod; send the rod at the other point, (*b* for instance,) direct the level

against the rod, and again mark the point (*d*) where the sight along *AB* meets the rod; then will the distance (*cd*) be equal to the difference of height between the points (*a*) and (*b*), the point (*b*) being higher than the point (*a*) if (*c*) is above, and lower if (*c*) is under the point (*d*).

If the difference of two points, such as (*d*) and (*e*) (fig. 4,) cannot be obtained by one station of the instrument, it can be done by intermediate stations. Take the difference of height between the point (*d*) and

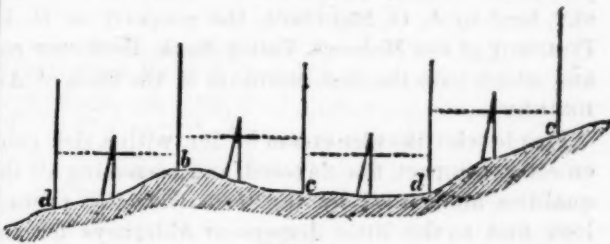


Fig. 4.

another point, (*b*) for instance, and then between (*b*) and another point (*c*), and so on until you arrive at the point (*e*). You obtain thus the differences of height between the point (*d*) and (*b*), (*b*) and (*c*), (*c*) and (*d*) etc. Record this in two columns; in the first the difference of height where the ground rises; in the second the difference of height where the ground descends. Add the numbers in each column, subtract their sums, and that gives the difference of height between the extreme points, (*d*) and (*e*), the point (*e*) being higher than the point (*d*) when the sum of the first column is greater than that of the second, and lower if *vice versa*.

For instance, let us have the point (*b*) 2 feet three inches higher than (*d*), (*c*) one foot two inches lower than (*b*), (*d*) one inch lower than (*c*), and (*e*) three feet higher than (*d*). This is recorded in the column thus:

NOS.	+	-
<i>b</i>	2 FT. 3 IN.	
<i>c</i>		1 FT. 2 IN.
<i>d</i>		1 IN.
<i>e</i>	3 FT.	
	5 FT. 3 IN.	1 FT. 3 IN.
	+ 4 FT.	

The sum of the differences of height when the ground rises is 5 feet 3 inches, when it falls 1 foot 3 inches. The difference between the two is 4 feet, which is the difference of level between (*d*) and (*e*), (*e*) being the highest.

Precaution must be taken to have the rod man hold the rod perfectly still and perpendicular when a sight is taken, and also when the instrument is to be moved to a new station. To test the accuracy of the work, a level line ought to be done twice. PAUL MAYOR, Berkshire, Tioga Co., N. Y. Civil Engineer.

The Iona.—Dr. GRANT has sent us a few bunches of the Iona grape. They were fully matured, and, to our taste, are about all, in quality, that can be expected or desired.

Making Butter from an Alderney Cow.

THE ANNUAL PRODUCT FROM LADY JERSEY, &c.

Visitors at the recent State Fair at Utica, who looked over the Stock Department, will remember a beautiful little cow in one of the stalls, with deer-like eyes—head fine and tapering, ears small, thin and deep, orange color inside; skin thin, light color and mellow, covered with fine soft hair. In fine a perfect little model of a cow, and attractive from having a peculiar fawn-like appearance. This was LADY JERSEY, bred by J. O. SHELDON, the property of R. H. POMEROY of the Mohawk Valley Bank, Herkimer co., and which took the first premium in the class of ALDERNEYS.

People who like nice cream butter, with a rich golden color, compact, fine flavored, and possessing all the qualities understood by the term "strictly prime," look first to the little Jerseys or Alderneys for the milk, and then know how or by whom the butter is manufactured.

A great many persons eat butter all their lives and yet have never tasted that which is "*strictly prime*." Good butter is one of the luxuries which like gold is "not in general circulation," and which in these times can rarely be had even in exchange for the precious metal. There are many gradations of butter, from the prime to the rancid. Much of that sold in market as of the *best* quality, is merely passable, having no positive bad taste, but yet destitute of the rich, delicate flavor of the best.

Butter-making is a very old and *very high art*—judging from the miserable samples that one gets everywhere throughout the country. There is reason to believe that the country taken as a whole is losing the art of producing good butter, humiliating as the statement may appear,—but the facts and the product warrant the assertion.

We recently saw and tasted some of the butter made from Lady Jersey. Its flavor and beautiful golden color cannot well be described. You see nothing of the kind in the markets, because the kind is rarely or never sold.

Mr. Pomeroy gives us briefly the manner of manufacturing. The milk is set very shallow in pans, and allowed to stand until it becomes thick or lopperd. The cream is then carefully skimmed, but if any specks or mould makes its appearance in any part, the cream of that pan is rejected. The churning is done in a stone dash churn, and the temperature of the cream raised to 62 deg., by setting the churn and its contents in hot water. Nothing but the cream is churned.

After the butter has come, it is washed in cold water three times to expel the buttermilk, and is then salted with fine salt at the rate of $1\frac{1}{2}$ ounces for a pound of butter. The salt is worked thoroughly through the mass, care being taken not to injure the grain of the butter. It is then put away in a cool place and stands from morning till evening, when it is carefully worked over and either packed or made into rolls. For keeping butter nicely for a great length of time, Mr. POMEROY finds the best plan to be to make a brine of such strength that it will float an egg and cover the butter. The brine should be tested in the way described, for if the brine is too weak it destroys the color of the butter. Such is

briefly the process of making butter that is of the finest flavor and quality, from an Alderney cow.

LADY JERSEY last year gave a product of 300 pounds of butter, and this year, up to October 26th, her product has been 290 pounds, to say nothing of cream used. Is she not worthy of the award made by the New York State Agricultural Society? At 50c. per pound, it will be seen that she brought her owner last year in butter \$150, and this year her product at the same rate will reach, at the close of the season, at least \$175. But such butter, if sent to market, would sell for much more than here named, and counting the sour milk, if fed to pigs, she will give her owner this year the snug little sum of \$200.

X. A. W.

THE LAUNDRY.

BY A HOUSEKEEPER.

Ironing.—All clothes iron more easily if taken from the line when just sufficiently damp to smooth well. If too dry they should be sprinkled, and rolled into tight bundles and laid in a basket. Colored clothes should not be sprinkled until the ironer is ready for them; it injures the colors for them to lie damp. For every ironer there should be a large stout table, covered with a thick smooth blanket double, and overlaid with a clean sheet. The skirt and bosom-board should have two or more layers of woolen cloth tacked on them smoothly, and then be covered with a close-fitting case of strong, smooth white cotton. Silks, worked muslins, tucked skirts, and all raised figured goods, should be ironed on the wrong side if possible. Most other clothes are ironed on the right side. The most particular parts of a garment should be iron last. Pantaloon should have the fold up in front of the leg. Skirts need have no fold made if ironed on the skirt-board, which is slipped into them. If ironed on a table, the fold should be at the sides.

Bed linen and table-cloths, napkins, towels, and so on, should be mangled; but this not being convenient in many private houses, they should be ironed in great perfection, and should have no creases in them. There are a variety of fluting and crimping-irons for doing up ruffles in these different styles. These are usually hollow, and have a heater which fits in them, and are used by the printed directions accompanying them.

Silks and woolens should be pressed with very uniform heat, as they are apt to change color, and will look spotted without extreme care.

Velvet should be damped, and have the wrong side run over the face of the iron, not be pressed under it—the last practice is ruinous.

Clothes should be perfectly dried before folding and putting away. Damp clothes smell disagreeably, and are very injurious to the health of the wearer.

VOLATILE LINIMENT.

Two ounces of spirits of ammonia, two of sweet oil, and one ounce of alcohol—put all in a bottle, shake well, and it is ready for use. It is a remedy for all external bruises where the skin is not broken, for pain in the side, back or limbs. It is excellent for the headache—inhalé it gently, and apply sparingly to the temples and back of the neck. There is nothing better for the sting of a bee, frosted feet or chilblains. In and wherever pain is indicated, this liniment is excellent, and no family will do without it when its value is known.

ANOTHER HOUSEKEEPER.

Good audience for an auctioneer—buy-standers.

STONE AND GRAVEL ROADS.

We have urged on former occasions, the importance of constructing roads of uniformly hard materials, instead of soft earth or muck. The former if well made, will furnish a fine, smooth, hard track, in all weathers; the latter will be cut into mud-holes and ruts from six inches to two feet deep; and sometimes prove nearly impassable. When hard and soft material are crudely mixed together, as we sometimes witness where large stone are thrown into heaps of muck, the mixture becomes intolerable.

Could we see the immense assemblage of broken and worn-out wagons, mud-splashed, injured and broken harness, and sprained and lame horses, (enough to fill any ten-acre lot,) which the bad roads throughout the country annually occasion, a strong impetus would certainly be given towards improvement.

Where a uniform, solid hard pan is found a few inches below the surface, or even at the depth of a foot or so, the cheapest way to make a good road is to scrape or cart the soft top soil to manure the adjacent fields, and then make the denuded surface into a smooth track. But where this cannot be done, an artificial road made of broken stone or gravel, is usually resorted to. A very common practice is to draw the loose and scattered stones from the fields to form a bed of proper width, and then cover this with gravel; or if gravel cannot be had, with earth. A section of a portion of such road is shown in fig. 1. The stone are



Fig. 1.—Badly made Stone and Gravel Road.

heaped up and spread over the surface irregularly, and then a sufficient depth of gravel or earth is placed upon them, to make a uniform surface. This seems to promise well for a time, until the hard corners of the stones, gradually working through the soil or gravel, make it uneven. The jolting of the wheels then begins to loosen the stones more rapidly—many of them work upwards and become partly uncovered; the gravel falls below, and in the course of years the road becomes excessively rough, as shown in fig. 2.



Fig. 2.—Result in after years.

Some years ago a road was carefully constructed at great expense, by first making the foundation of block stone or very thick flagging. On this a coating of gravel was placed, giving it a handsome finish; (fig. 3.) For a time it promised everything that was desired. But three combined causes soon began to operate to injure it. When the earth below



Fig. 3.—Block Road.

became soaked with water, it was too soft to sustain the superstructure. The action of frost increased the difficulty, and the tumbling of heavy wheels above gradually jolted the blocks from their places. In the course of years the solid bed of block stone became entirely broken up, and some of them were turned on edge, as shown in fig. 4.



Fig. 4.—Final result.

Now the question will at once arise, how are these formidable evils to be remedied? There are two ways—one is expensive, the other compara-

tively cheap. The first is the McAdam road—formed of a deep bed of small broken and angular stone—which, by the rolling of wheels, becomes compacted and cemented together, and forms a solid immoveable mass. This road requires a large expenditure of money to construct properly. Many poor ones are made, which do not deserve the name. The other road is the Telford. By using the larger portion of the stones unbroken, much expense is saved. By arranging them as shown in fig. 5, they are held to their places, and do not work to the surface as exhibited in



Fig. 5.—Portion of Telford Road.

fig. 2. All the rounded and loose stone which are found scattered over farms, (which are better for their removal,) may be used for constructing Telford roads. As none of them are absolutely spherical, and nearly all have a thin and a thick end, being somewhat wedge-shaped, the larger end is placed downward, and the smaller upward, as represented. By selecting them according to their size, the larger ones may be placed in the center of the road, and the smaller ones, by gradual diminution, towards the sides. Coarse gravel, or what is still better, small broken stone, is then rammed between them. The whole surface is then covered with similar but finer material, and the road is finished, as shown in fig. 6. When loaded vehicles are driven

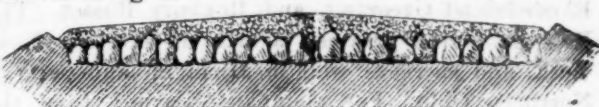


Fig. 6.—Section of Telford Road.

over this road, every successive wheel crowds the broken stone more firmly between the stone wedges, and the whole becomes a solid and immoveable mass. It is impossible for the stones to work to the surface, the larger ends being down.

If those who employ stone for making road beds, would take the additional care to select and place the stones in this way, instead of throwing them into a careless and promiscuous heap, it would ultimately result in great economy.

•••
The Potato Rot.—In one of your recent Foreign Notices, Baron Von Leibig is quoted as high authority. And so he is; but we who plant and cultivate and dig our own potatoes, would rather have facts than theory, even though emanating from the great chemist. The day before yesterday I dug my potatoes, which I had planted and cultivated with my own hands. There were three varieties—Prince Albert, Peach Bloom and Baltimore Blue—all on the same half acre, and planted the same day, and treated precisely alike. The Prince Albert (white) and the Peach Bloom, color well described by its name, yielded enormously, with scarce a trace of disease. The Baltimore Blue, a long potato, and of a dark blue color, yielded also largely, but more than half were overgrown with the fungus, and nearly all rotted or rotting. That this disease is a fungus I think admits of no doubt, and no doubt the phosphates and potash are good, perhaps the best manure for the potato; yet variety seems to have something to do with it—whether color, vigor of growth or time of ripening, remains for future investigation.

Flowerdale Farm, Illinois, Oct. 27th. GEO. W. MINIER.

Circumstances are the masters of a weak will and the ministers of a strong one

APPLES FOR MARKET.

Judging from the frequency of inquiries on this subject, there is no information which land-owners more desire than lists of the best varieties of market apples. After all the discussions and reports of successful experiments, orchardists are adopting the opinion that for long-continued and reliable profit, winter apples promise as well as anything yet fully tried. An orchard, well selected and under good growth, may be looked to for yearly returns with scarcely a failure for a life-time. It is not liable to the disasters, in the form of fire-blight and cracking, which befall pears, and does not require the vigilant attention, management in culture, and skill in packing and marketing needed for strawberries. Owners of apple orchards would, however, find it to their profit and advantage if they would devote more attention to them—giving them some occasional pruning, better culture, thinning out the defective specimens, and selecting and packing the finest fruit only for especial market. A high reputation, once established and maintained, would enable them to sell at high prices, and to find a ready market during abundant seasons, when fruit of medium or poor quality could not be sold.

In answer to repeated inquiries, we mention as the three best winter market varieties, the Baldwin, Rhode-Island Greening, and Roxbury Russet. The Baldwin is the greatest favorite in Western New-York, and succeeds well in Michigan and parts of Northern Ohio. For abundant bearing, from the time the trees have been set three or four years till they are more than half a century old, nothing has been found to equal it. The Rhode-Island Greening stands next, and is scarcely inferior in value. It does not bear so early, but the tree is hardier, and the fruit of more uniform good quality and fairness of appearance under all the varying influences of management and seasons. The Roxbury Russet is not so productive as either of these, but its keeping qualities, rendering it valuable for spring shipping to cities, at high prices, have induced some orchardists to place it first on the list for profit.

None of these three varieties are of the highest excellence in quality, although they will doubtless be always accepted so long as human beings are fond of fruit. It must be admitted that the public taste is becoming gradually educated to a higher standard. Many large orchards of the Baldwin have been planted, to the exclusion of all others. Purchasers will not be satisfied with these alone—they will look to more delicious sorts for supplying their tables. It will be prudent, therefore, for planters to set out a few other varieties. There will be some difference of opinion what these should be; the best way will be to form moderate plantations of several of the best, and observe in the course of years which give the most satisfactory results. Among these we recommend the following:

Northern Spy—a tardy, but ultimately a good bearer, requiring, occasionally, some thinning out of the smaller branches, and cultivation sufficient to produce annual shoots a foot or more in length—otherwise the fruit will be small as the trees become older, marked with patches of black fungus, and sel

at a diminished price. The *Northern Spy* is a tender apple, easily bruised, and must therefore be carefully packed. It keeps into spring, and if well managed will usually sell for more than triple the price brought by Baldwins and Greenings.

Peck's Pleasant.—This is a large, smooth and fair apple, of excellent quality, and when well known will be much sought for, for early winter use.

Jonathan—a slender and crooked grower, and hence disliked by nurserymen; this is one reason why it is so little cultivated. It would answer well for re-grafting orchards, or for setting on natural trees. It is a great and early bearer, the fruit beautiful and excellent in quality, although of rather small size. When well known it would doubtless be much sought for to grace tables in cities.

Esopus Spitzenburgh is perhaps the highest flavored of all apples. It is widely known, and although its cultivation has been neglected on account of the tenderness of the tree, as well as some uncertainty in the crop, it may yet be much sought for, for its excellent quality.

Tompkins County King.—This has succeeded well in Western New-York, but is less valuable or fails at the West. It is a strong grower, and usually a good bearer, although producing less crops than the Greening and Baldwin. The fruit is large, showy, and fine in quality, and sells at higher prices than the two last named.

Wagener is a smaller fruit, but possesses great excellence of quality, and is often quite handsome in appearance. It is well worthy of considerable planting by way of experiment.

The *Swaar*, *Newtown Pippin* and *Red Canada* stand high on the list for excellence of quality, but the defects on the surface of the fruit are a serious drawback to their general culture.

In large portions of the Western States, the *Ben Davis* proves the best market apple.

There are several other varieties regarded as favorites by different cultivators, and we would be glad to receive the opinions of those who have given them a full trial as to their relative value.

STRAWBERRY CULTURE.

No fruit has given higher and more uniform profits, all things considered, than the strawberry. A greater return has occasionally been received by the sale of Delaware and other fine grapes; but a large outlay has been required in these instances to place the vineyard under way. Our readers are well acquainted with the great success of J. KNOX of Pittsburgh, and with the fact that should not be forgotten, that his success is largely owing to the excellent and thorough culture which he gives his plantations, and to the care, system and elaborate skill used in picking, assorting, and packing his fruit for market. We observed a few weeks since in looking over a Pittsburgh paper, containing a list of revenue tax-payers, that his revenue was marked over \$12,000 for last year. This is doing well for a plantation of some 50 acres. In a recent conversation with him on this subject, he stated that \$8,000 of this sum were received from the sale of strawberries alone; and that, but for the unusual and severe frost early in the season, he

would undoubtedly have received \$15,000 for them. We have not known an instance where a strawberry plantation has been subjected to good management, including clean hill cultivation, and the prompt excision of runners, that has not afforded a handsome profit. Proximity to a good market is always desirable; but so tempting and delicious are the best grown strawberries that they will manufacture a market in almost any place. We have had occasion to examine a number of instances the past year where strawberries of the best varieties have been raised by the management just alluded to; and in these cases the sales have amounted to about \$1,000 per acre. The cost of land, culture, superintendence and marketing, were variously from \$250 to \$500 per acre—leaving a net profit of \$500 to \$750. This net return may doubtless be relied on in all cases for some years to come, if the business is managed with the best experience and skill, and city markets are selected. The inquiry may occur, "Why do not many rush into the business and overdo it?" The answer is, "Many actually do enter it, but so rare is the appreciation of the best management that scarcely one in a hundred gives his plantation the attention it should receive, and as a consequence his receipts are moderate or less in amount."

Implements at the N. Y. State Fair.

We make the following extract from the report of our correspondent, X. A. WILLARD, on the machines and implements exhibited at the late State Fair at Utica:

Hardee's Horse Power and Thresher.—This machine is a combined railway horse-power, thresher and cleaner. The horse-power differs from others, by having a reel at each end of the bridge, and by having large wheels in which the bridge moves, thereby giving more power than smaller wheels. This power is well built.

The thresher and cleaner has very large capacity for separating the grain from the straw, and also for cleaning, having sieves of thirty-one inches in width and five in number, adapted to different kinds of grain, with side-shake as in ordinary fanning-mills.

Wheeler & Melick's Horse-Power and Thresher.—The new improved endless chain railway, is an improvement in this class of machines. The traversing wheels run upon steel pins, dispensing with iron rods running across the power, causing the power to run much more easily. The link is so constructed as to prevent the wheels from rubbing against the frame of the machine, thereby reducing the friction. An improvement has also been made in the construction of the sides, being so made, that by opening a small door on each side of the machine, the platform can be easily removed and replaced. The revolving-rake for separating the grain and carrying the straw from the machine, works well, and makes a perfect separator of the straw from the grain.

Cook's Sugar Evaporator.—In this evaporator the sap is admitted at one end, passes transversely across the pan in channels, and discharges syrup continually, or boils in a continuous stream. By means of transverse current the sap is passed over a hot and cool surface, and by that means impurities are thrown out, that could not be done by boiling in a flat surface

pan. The number four size works off from sixty to ninety gallons per day.

Plows.—There was a large and splendid collection of plows upon the grounds, embracing all the best and latest improvements in this implement. Among the samples shown we note the following: Mead's Patent Conical Plow, Iron-Beam Plow.

The Union Plow has a subsoil attachment. The subsoil attachment can be raised or lowered according to the depth required, and is a very useful implement for reclaiming old lands, and apparently good and serviceable.

Branch Beam Hilling Plow, is a double mould board plow with two sets of wings, that are put on to extend the length of the mould-board for hilling purposes. By removing the wings and breast-plate in front, a coulter is attached for rooting out quack, depositing it behind the plow. The plow is constructed in parts, so if breakage occurs, parts may be supplied. By removing the breast and wings it answers for first time going through the land. This is a new and ingenious device, and we should judge would be very useful in hoeing. It is said by those having used it, to be a great addition, a hoe hardly being necessary when the machine is in use. Price \$10.

Revolving Land Side Plow.—The object of this plow is for all kinds of work, the adjustable mould-board serving the purpose of plowing sod or stubble. The plow rides upon the revolving land side. This implement took the silver medal for plows embracing a new principle. Price \$12.50.

Scivel Plow.—This implement has a convex mould-board which gives a thorough pulverization to the soil, with light draft and freedom from clogging. The beams are long, which gives it a steady motion. It took first premium.

Universal Plow.—This has a convex mould-board, or rather two, one for sod and one for stubble, and has in addition a skim plow which turns it into a Michigan plow, thus making three plows in one.

The Scivel or Side-Hill Plow has an adjustable coulter for throwing it in position on either side. The clevis is reversed to make the draft light, as it is thrown either side. It is a good implement.

Corn and Bean Planter.—It plants two rows at a time, and is so constructed as to make its own furrows, depositing the seed, crossing and rolling down, and finishing the planting in one operation.

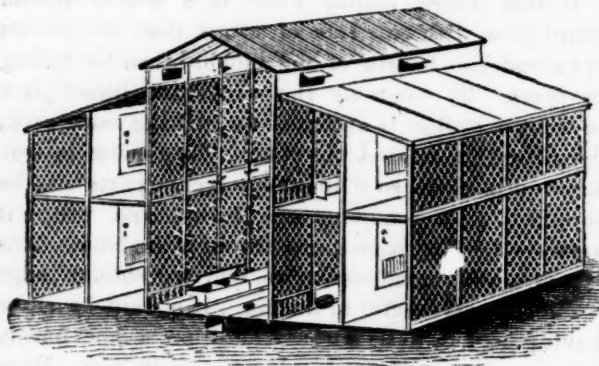
Nevins' Combined Horse Hoe Planter and Potato Digger.—This machine plants corn, beans, potatoes, and broom corn, and all seeds that drop readily. The machine ridges the ground, and plants the seed in the ridge as fast as a horse can walk, and by a change after the planting is done can be turned into a horse hoe. By another change it serves as a potato digger, turning out the tubers where there is an average crop, at the rate of two to three bushels per minute.

Wheel Corn Plow and Cultivator.—This implement is designed for plowing out corn, beans, carrots, or any crop grown in hills or rows, also for furrowing and cultivating among hops. It is arranged on wheels with cam levers and catches on each side to adjust it to any desired depth. It has a seat for the operator to ride, and by taking out the cultivator teeth and putting in plows, it becomes a gang plow, useful for light work, turning in grain or cultivating. Price \$65, including teeth and plows.

The National Poultry Company, England.

Having recently visited the buildings erected by the National Poultry Company at Bromley, Kent, we are desirous of placing the result of our inspection before the readers of the Field. The company has been formed for the purpose of carrying on the business of breeding and fattening poultry on a large scale in buildings specially erected for that purpose, so as to secure an even temperature throughout the year, and protection from the weather, with perfect ventilation.

These buildings consist at present of a poultry establishment, 360 feet in length, with a corridor down the middle, the homes or runs for the birds being on either side. The fowls are placed, according to their breeds, in compartments having closed and open runs.



The engraving shows a cross section of the building, and explains the arrangement and construction of the homes or runs. Each closed run is twelve feet in length, three feet in depth (from front to back), and six feet six inches in height. It contains perches and a short fowl-ladder for the ascent of the birds. The floor of these runs is covered with a deep layer of dry pulverized earth, on which the manure falls, and which acts as a most efficient deodoriser. At the back of each closed run is an open run of similar size; this it is proposed to cover with a layer of ordinary farmyard straw manure, so as to afford the fowls exercise in scratching for food. The fountains are placed in the inner runs, and are raised on a shelf, so as to prevent the fowls scratching the dirt of the run into the water. The feeding-troughs are on either side of the long corridor, and, with the laying-boxes, occupy the entire front of each run. Over the run for the large fowls are other ones for the young chickens; these are of the same length and depth, differing merely in being less in height. The entire length of the building is constituted of a repetition of exactly similar compartments (two only being shown in our engraving), making up a total length of 360 feet or 120 yards.

The interior of the corridor is to be used as a vinery, the vines being trained under the glass roof. At one end of the building is an excavation containing a furnace; from this an air-flue proceeds under the floor of the central corridor along the entire length of the building. In winter this will furnish a constant supply of warm pure air, which will ensure the efficient ventilation of the house.

The "homes" are intended to accommodate seven fowls in each, but at present the building is tenanted only by 300 to 400 birds. The specimens of Houdan Crevecoeur and La Fleche fowls are of very high excellence; we have never before in England seen such good specimens of these breeds. The birds have been in confinement about three months, and although now mostly in moult, are in admirable condition—a state of things that we attribute partly to the really judicious system of feeding, but more particularly to the employment of the dry earth in the runs. This has the effect of entirely absorbing all odor, and renders the air of the building purer than that of any other poultry-house we have ever before set foot in.

The English fowls are as bad as the French races are good. A more rubbishy set of mangy-looking Cochins, under-sized Dorkings, and pinch-combed Spanish hens, we never saw in any place where good poultry were supposed to be collected together.

The chickens in the building are comparatively few in number, only a small number of the upper compartments being now tenanted. This arises from the fact that the building is not yet completed, and the opera-

tions of the society can hardly be said fairly to have commenced.

The ground upon which the building stands is about six acres in extent, and it is proposed to cover it with ranges of houses similar to the one at present erected; they being placed 60 feet apart.

In order to render the whole concern as self-supporting as possible, the intervening space between the houses is to be cultivated as a market-garden, the fowls supplying abundance of valuable manure to the gardens, and receiving in return the trimmings of the green crops, which will be minced up with the food. Animal food will be supplied in requisite quantity, and grain and meal in due proportion.

The experiment differs from many that have been previously tried; instead of aiming at keeping a large number of fowls at large in a moderate space, it perfectly secludes each set from the others. As far as the experiment has been tried, it appears to have been perfectly successful. The building is sweet and wholesome, the air pure, the fowls in good condition, and laying very freely when the time of year is taken into consideration.

The young chickens running in and out of the coops in the garden ground are strong and vigorous. Whether they can be developed into vigorous pullets and cockerels by the system adopted remains to be proved, and we shall watch the progress of the company with great interest.

The whole arrangements have been freely thrown open to our inspection in the most obvious good faith, and without pledging ourselves to the success of the scheme, we can safely say that if poultry-keeping on a large scale in a limited locality is to be made to pay by any management whatever, it will be by the system pursued at Bromley.—*London Field*.

THE LAUNDRY.

BY A HOUSEKEEPER.

Materials for Washing.—We proceed to give, concisely as possible, the directions for manufacturing these at home, beginning with the ash hopper. These are made in various ways. A strong hoghead, that will not leak, makes the best. Set up around it, on the inside, some blocks about 18 inches high. On these lay some strips of plank, with interstices of an inch. On these lay a thick filter of straw. Then proceed to pack the hoghead full of strong ashes, sprinkling and ramming them as you go. Fill within six inches of the top of the barrel with ashes. There should be a faucet near the bottom of the hoghead, and the hopper should be set on blocks.

After filling let it stand a week or more. Then commence tending it with boiling water. You may let water stand on it until it begins to drip freely; then only throw on from time to time water sufficient to keep it dripping steadily. If you use a hoghead, you will draw off daily what lye has been collected in the bottom. Barrels, a large good box, or the conical-shaped hopper found in almost every farm-yard, answer well, but had best be set on a large trough, with a bottom sloping down to the end, which juts out from under the hopper. This trough collects all the lye without waste, and having a lid to close over it, preserves its strength. When the strength of a hopper begins to be exhausted, it should have some strong lime thrown on the top, say a peck to eight bushels of ashes. If you like to do up things summarily, keep some lye barrels and get down as much lye as will make up your year's soap before you begin boiling. Soap grease may be used up in the state in which you gather it, but soap is far nicer if you will boil the soap grease in weak lye. The grease will float clear on the top; when cold it can be cut off in cakes, and the bones, skins, lean flesh and so on will be a sediment good for your compost heap.

Cold Soap.—Have in a kettle or strongly hooped barrel, that will not leak (lye is very searching), filled with clear lye, strong enough to bear an egg, and clean

soft grease; mix enough to fill your vessel. To six gallons of lye allow one gallon of grease. Set the vessel fairly in the sun, stir the contents every day, and if after a week it is found too thin, stir in a little more grease. This soap will be made in about one month of summer weather.

Soft Brown Soap.—When the boiling lye will strip a feather, put one and a half pounds of soft grease to a gallon of lye. When thoroughly incorporated, dip in another feather; if it barely eats the down, there is enough grease in it. Boil it until it is as thick as you like it when cold.

Hard Soap.—When the boiling lye will strip a feather clean, put into two gallons of lye one and a half pounds of clean grease. Boil it (trying whether it has enough of grease with a feather) until it becomes very thick; then throw in a pint of salt to every four gallons of soap. Boil it a while longer; set it off to cool. When hard cut it out in bars, scrape off the sediment from the bottom, and put it on a shelf to drain. The lye, &c., at the bottom of the kettle answers to do rough scouring, but is more useful on the garden.

California Soap.—Five lbs. white bar soap or yellow will do; four lbs. sal soda, one-half lb. borax, one ounce of ammonia. Dissolve these materials in five quarts of water. When perfectly dissolved pour the liquid into seven gallons of soft water and mix thoroughly.

This soap is said to be equal to any wash mixture—very searching, but not injurious to the hands.

Clothes should be put to soak in suds made of this mixture over night, and after proceeded with according to directions, under English receipt, which will be given in our next.

Planting Out the Arbor Vitæ.

MESSRS. EDITORS—Allow me to say a word in answer to the inquiries of "Arboretum." I have furnished many thousand of cedars for nurseries, to be taken to different places. They leave here with the name of cedar; after a few years they are sold for Arbor vitæ; I suppose both names are correct. I think if the soil suits them no particular preparation of the ground is necessary, for they grow in the cold, wet swamp muck, and upon the driest, light, thin soil upon the rocky ledge. I think they do best to remove them late in the fall, although there is no difficulty in removing them early in the spring, and trees may be safely removed from six inches to three or four ft. in height. Cattle will not trouble them at all, except when the ground is covered with snow. I have clumps of low trees that will defy the passage of cattle. I have no long ranges of hedges, but I regret it much that my attention was not called to it years ago. This fall I intend to set a long stretch of them on the north side of an east and west half wall that is banked up, and this is the side that is in pasture, and there is no trouble of having them grow close to the wall, or anywhere on this sloping bank. By covering the lower limbs they will strike new roots any distance from the main tree and form new shoots, or the limb will make another tree, being still attached to the parent stem. When grown separately in the open field they make beautiful cone-shaped trees. I should get rich entirely too fast if I should get the prices you mention. As to pruning, I like the article on page 127, current vol.

Any person passing through this village can see

good specimens of trees, growing without any culture, by looking out of the car windows on the left hand side going west, and taking a view of the sides and top of the bold bluff that lifts itself up so grandly on the south side of the river. There is the home of the Arbor vitæ.

Little Falls, N. Y.

S. S. WHITMAN.

CEMENT PIPE FOR CARRYING WATER.

EDS. CO. GENTLEMAN—I frequently see inquiries in your paper for the best pipe for conveying water. I laid a pipe in 1854, and after thorough investigation adopted the hydraulic cement pipe made by the Water and Gas Pipe Company of Jersey City, N. J., and find it to be perfect in all respects, and has caused me no trouble. It is made by coating tin or sheet-iron tubes, 8 or 10 feet long, with cement, and as they are laid in the ditch, covering the outside and joints with the same material; a sleeve some four inches long and an inch larger in diameter than the pipe, covers the joint, and the space between this sleeve and the joint well cemented; the whole joint is then well covered with cement. Another, and I think better, plan of making the joints, is to have one end of each pipe funnel shaped to receive the end of the adjoining piece, the space then filled with Roman cement, and the whole well coated with common cement.

Pipes of this kind properly made, will stand any pressure ordinarily wanted, are perfectly pure, and not corrosive. Iron pipe is subject to rust, which will in some cases entirely close the pipe. Lead is dissolved by some kind of water, and honeycombed by some kinds of earth, and block tin is by no means always reliable. I would lay no other kind than cement if furnished to me free, where the purity of the water is important.

DAVID LYMAN.

P. S.—Let your Morristown correspondent see this pipe at Gordon Burnham's, Esq., of his town. He laid his in 1853, and recommended it to me.

Middlefield, Conn., Oct., 1865

Agricultural Exports.—The following table shows the exports of our leading articles of domestic produce from the port of New-York, for ten months to the close October, in each of the years named:

FIRST TEN MONTHS.	1863.	1864.	1865.
Beeswax, lbs.,.....	147,129	422,454	187,044
Breadstuffs:			
Wheat Flour, bbls.,...	2,170,405	1,713,379	1,198,151
Rye Flour, bbls.,.....	5,055	2,067	2,228
Corn Meal, bbls.,.....	112,783	94,649	108,495
Wheat, bush.,.....	13,664,989	11,842,820	1,823,935
Rye, bush.,.....	416,249	453	170,364
Oats, bush.,.....	118,974	39,310	67,509
Barley, bush.,.....	52,439	150
Peas, bush.,.....	86,499	175,555	50,813
Corn, bush.,.....	7,445,102	802,966	2,623,006
Cotton, bales,.....	12,632	25,610	103,896
Hay, bales,.....	17,668	32,835	28,100
Hops, bales,.....	21,562	17,739	13,339
Oils—Lard, galls.,.....	793,548	124,570	23,662
Linseed, galls.,.....	14,884	58,577	12,804
Provisions:			
Pork, bbls.,.....	161,368	119,010	101,276
Beef, bbls.,.....	33,812	32,276	33,898
Beef, tcs.,.....	34,473	44,205	43,042
Cut Meats, lbs.,.....	170,573,369	87,797,888	30,590,163
Butter, lbs.,.....	13,143,125	11,724,664	9,289,859
Cheese, lbs.,.....	32,100,933	38,557,711	35,697,023
Lard, lbs.,.....	107,683,994	49,393,739	20,909,311
Rice, tcs.,.....	168	4	58
Rice, 1 sh.,.....	9,266	18,840	17,792
Tallow, lbs.,.....	35,241,807	28,084,404	14,043,025
Tobacco, crude, pkgs.,...	88,385	129,622	129,171
do. manuf., lbs.,...	2,585,964	4,412,417	3,646,463

Good counsel never comes too late.



STEWART'S STUMP-MACHINE.

Stewart's Stum Machine—the Very Best Stump-Puller.

MESSRS. EDITORS—It is an old saying that it is very easy to do a thing after you know how to do it. This is especially true in regard to pulling stumps, which is a very simple operation when understood, and it requires but little study to understand; but from the frequent inquiries in the *Co. GENT.* in regard to it, or for the best machine to pull them, it appears to be very little understood by many of your readers. Fifteen years ago I was in as much ignorance in regard to the business as any one, but coming into possession of a piece of white pine plain land which had about five hundred trees to the acre, on several acres of it, I was very much perplexed to find the best way to get rid of the stumps after the trees were removed, but as they stood so close together it was very difficult to plow among them—the only way was to pull them or give up trying to cultivate the land. For the last ten years I have therefore had occasion to pull more or less of them about every spring and fall, as my cultivation encroached upon their domain. I can therefore write from a good deal of experience, and what I say may be depended upon; but I should much rather show how the work is done in the field of operation, than to write about it.

You refer your last querist, E. D. Hix, to the pages of former volumes of the *Co. GENT.* for description of machines, and to A. Crawford of Warren, Maine, for a circular. Mr. Hix cannot do better than to consult the pages of the *Co. GENT.*—"Crawford's Stump and Rock Extractor" was on exhibition at the Fair of the New-England Agricultural Society, held in this town last month. It is a hand or man power machine, and will do very well for lifting and removing rocks, but I should about as soon think of drawing a breaking-up plow by a hand-power machine as to pull stumps by the same means; of the two, plowing requires much the less power.

Of all the many stump-pullers that I have examined, read of, or tried, I do not believe a better machine for pulling large stumps has been constructed than "*Stewart's Patent Stump Machine*," which is very well illustrated by a print in the *Co. GENT.* for April 24th, 1856. The machine was patented in 1840, the patent expired in 1854, so any one has had a right to make the machines since that time. An alleged improvement upon this machine was patented in 1855 and

"Willis' Patent Stump-Puller" was cried up by parties as being about the greatest invention of the age for stump-pulling, and was destined to revolutionize the business. So far as ever I could find out, the improvement was of as much use to the machine as "the fifth wheel to a coach," and no more, so far as it concerned stump-pulling.

If you have the type of Stewart's machine, you can not do your readers who are interested in stump pulling, a better favor than by reproducing the print referred to at the present time. The machine is so simple almost any farmer, with the aid of a good blacksmith, could make one from examining the engraving. There is some little obscurity about parts of it, which some explanation of the machine may help to clear up.

The machine is a combination of two good stump pullers, the first in importance and most powerful of the two, being the sheers—set up over the stump to be pulled. Webster's Unabridged defines "*SHEERS*, n. pl.,—an engine consisting of two or more pieces of timber or poles, fastened together near the top; used for raising heavy weights, particularly for hoisting the lower masts of ships." The second one is the double acting lever operated by the horse. Either one can be used for pulling small stumps, when but little power is wanted, or they can be used in combination, as represented in the engraving, when it makes as powerful a machine as can be required. The power of the machine can also be varied at pleasure by altering the distance of the chains attached to the lever from its fulcrum, and by setting the feet of the sheers nearer to or further from the stump to be pulled. With one of the large machines with a twenty foot lever and a fifteen foot sheers, *one horse* can exert a power on the stump to be pulled of *three hundred horses*. In fact, the power of the machine is only limited by the strength of the material used in its construction.

Now, Messrs. Editors, if any of your readers, interested in stump pulling, can not *see into* this machine plain enough to make and use it, let them make known their difficulties through the columns of the *Co. GENT.* and I will do my best to make the subject plain to any one's comprehension through the same medium, but, as I have no "axe to grind" on this machine, I do not wish to have my privacy intruded upon—therefore, I am only a STUMP PULLER.



THE BLUE BIRD—*Sialia sialis*. BAIRD.

The Blue Bird is one of the best known of our birds. It is he who first informs us of the approach of the long wished for spring. He comes to tell us that cold, stormy winter is over and spring has come. Under such circumstances is it surprising that he should find a warm welcome?

He arrives about the middle of February, or the beginning of March, according to the lateness of the season. Often he appears as early as the beginning of the second week in February. But as we are often liable to heavy snow storms about this period, he disappears again, and when spring has really arrived comes back to us.

"When he first begins his amours," says Mr. WILLIAM BARTRAM, "it is pleasing to behold his courtship, his solicitude to please and to secure the favor of his beloved female. He uses the tenderest expressions, sits close by her, caresses and sings to her his most endearing warblings. When seated together, if he espies an insect delicious to her taste, he takes it up, flies with it to her, spreads his wing over her, and puts it in her mouth."*

We have no doubt but what some of the female Blue Birds are quite as coquettish as their representatives in the genus *homo*. Well, after having used all the arts that he is master of, and after repeating the oft-told tale, she, with much seeming hesitation and maidenly coyness, consents to make him happy by acceding to his wishes and becoming the wife of his bosom.

The above preliminaries being settled, they, like many another young couple, look around them for a dwelling place. This is soon found—or better still is sometimes provided for them in the shape of a neat little box. But where the owners of the land are not so thoughtful, they content themselves with almost any hole in a tree or stump. Into this they both

carry some dried grass, which they gather from some neighboring field.

Having arranged it to their satisfaction, the female deposits her eggs—one a day—with great regularity. She often commences sitting* before all are laid, in which case it is our opinion that she rolls the latest laid eggs immediately under her, where they of course receive the most heat, and therefore hatch at the same time with those laid a day or so previous.

They lay from five to six eggs of a charming pale blue color, which measure on an average seven-eighths of an inch in length by five-eighths in width.

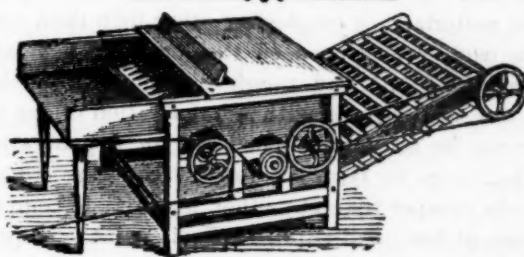
In about two weeks the eggs are hatched, and now begins the "busy season" of the Blue Bird. No rest for him now. Both parents must toil all day long to supply the greedy little mouths which are outstretched at every sound.

Their food consists of nearly all kinds of insects, especially many species of coleoptera. The song of the Blue Bird is a soft, agreeable warble. Listen to what WILSON says of him:

"When all the gay scenes of the Summer are o'er,
And Autumn slow enters so silent and sallow,
And millions of warblers that charmed us before,
Have fled in the train of the sun-seeking swallow,
The Blue Bird, forsaken, yet true to his home,
Still lingers, and looks for a milder to-morrow;
Till forced by the horrors of winter to roam,
He sings his adieu in a lone note of sorrow."

[A. O.]

J. P. NORRIS.



Palmer's Climax Threshing Machine.

The accompanying illustration represents a threshing machine, recently invented by Rev. N. Palmer Hudson, N. Y., which is designed to thresh all kinds of grain, and deliver the straw unbroken, and as straight as it was before the grain was threshed out.

The machine consists of two cylinders about 5½ feet long and 14 inches in diameter, revolving towards each other. The peripheries about 4 or 5 inches apart.

One cylinder is armed with spikes, which carry the straw, as it is fed in the machine sideways, down between the cylinders and under the other one, the surface of which is corrugated, and revolves close to a corrugated concave, or bed piece. The concave is adjustable, so that the space may be made so narrow that the smallest head of wheat cannot pass through without being threshed, and not crack the kernels.

The straw is delivered on a revolving carrier, which drops it in straight gavels for binding.

We have seen this machine in operation, driven by

* We say "sitting" in the COUNTRY GENTLEMAN, but how we would be laughed at, were we to announce in the country that such and such a hen was *sitting*! And yet it is undoubtedly proper. Strictly speaking, nothing *sits* except the sun, (even the eldest son has to *sit*.) and yet it is so familiar an expression to say that a hen is *sitting*, that it is hard to break one's self of the habit.—J. P. N.

* Extract from a letter from Mr. WILLIAM BARTRAM to ALEXANDER WILSON. See *Wilson's Ornithology* Vol. I, p. 55.

a two-horse railway power, and have fed it while threshing rye; and we do not hesitate to pronounce it as the completest threshing machine that we have ever met with.

When feeding it, we threw in large handfuls diagonally, and nearly endwise, but the straw all came out quite straight.

We are satisfied that this machine will thresh faster, with the same power, than an ordinary spiked cylinder, as there is more space for the straw to pass through, and the effective force of the power is not absorbed in breaking the straw.

Our experience with threshing machines warrants the statement, that more power is absorbed in breaking and tearing the straw to pieces, when the threshing is done with the ordinary spiked cylinder, than is required to thresh the grain. Palmer's thresh-er obviates that imperfection in machines in the most successful manner.

S. EDWARDS TODD.

ABOUT CELLAR WALLS, &c.

Since we published an article in the CO. GENT., on the subject of Concreting for Building purposes, we have received numerous inquiries on the subject, both by letter and through that paper. Several farmers have been so far interested as to visit my premises and examine this style of building. All who have had experience with such buildings express themselves highly pleased with them.

Farmers have learned that they can put up such barns and out houses as are needed, without going far for materials, or employing other help than such as are usually employed on the farm. When built of gravel and lime, and rough casted on the outside, with the roof covered with a preparation of gas tar, there can be no perceptible decay for a generation. For buildings or farm buildings, it answers equally well—is cheaper than any other material to compose a house at first, and requires no oil paint or repairs after finish.

"J. S. S." desires to learn if concrete will answer for a cellar wall. My experience teaches that common mortar will not stand wet and freezing. Even water lime will crumble when exposed to weather. If such a wall can be kept from frost, there is no trouble about its standing. Bank round it, or place boards against it, so as to keep away the frost or wet, and it will answer well. But such work needs to be done in dry weather, so that it will harden as you proceed.

Gravel is much better for the mortar than sand, and all sorts of stone can be laid into the boards on the wall. If you have small stone, it is quite as well to fasten your boards to the wall, as heretofore described, and spread through a layer of the gravel mortar, and then pack in a layer of stone, and so progress with the wall as fast as it will harden. This is the way I built up a dwelling-house this season, using blocks for the corners or any other portion of the wall where convenient. The blocks used on the first story were cast in boxes, 18 inches long, 12 high and 10 wide. These were found too heavy for two men to handle easily.

The second story was raised with blocks alone. These were cast a foot in length and height, and eight

inches wide. The coarse stone and gravel was dug up and mixed with the lime; this mixture was poured into the boxes, which were set upon boards or on the ground, allowed to stand about half an hour, and then the boxes were lifted off. If the boxes are made a little beveling they slip off pretty easily. Never allow the concrete to dry in the box. No water cement was used in these blocks, except where we filled some boxes on the corners of the wall, and lifted off at once. Make the mortar thick as it will shovel good.

Granby, Ct.

A. L. LOVELAND.

FRUIT TREES AND OILS.

I am exceedingly anxious to obtain from you, through the COUNTRY GENTLEMAN, reliable information as to propriety and utility of using oils on apple trees for the destruction of *bark lice*. I have a comparatively large and productive orchard of old and young trees, but I find these little pests are committing sad depredations. I have been advised to use oils as a remedy by some; I have been warned by others that oils only partially destroy the vermin, while they permanently injure and sometimes destroy the trees. My investigations, and an examination of the files of the COUNTRY GENTLEMAN, Canada Farmer, and other papers, have left me somewhat perplexed, as the matter seems to be with many yet a vexed question. I am sure all who read the COUNTRY GENTLEMAN and have orchards, will highly appreciate an editorial or letter of correspondence giving in practical and reliable form, the results of the examinations and experience on the subject of those who contribute to your columns.

May oils, as a general thing, be advantageously applied to apple trees for the destruction of these lice? If so, what oils are preferable? Are Paraffine and similar oils, which are sometimes used here, not too penetrative? Would you use the common fish oils? When would you make the applications? May they be applied to *thorn* and other trees invested with these pests? W. "Hampton Place," K. C., New-Brunswick.

We cannot recommend the application of simple oils to the bark of fruit trees. If spread over the whole surface it would probably destroy the trees—unless done in winter with some oil that quickly dries, and does not fill the pores. Having never been troubled with the bark lice, we cannot speak from our own experience; we therefore briefly state some of the remedies which have been proposed. Dr. Fitch recommends leaf tobacco boiled in strong ley until reduced to an impalpable pulp, when it is to be mixed with soft soap (made cold, not boiled,) until of the consistence of thin paint, and then applied to the bark with a brush. One application, he states, will protect for two years. The late A. G. Hanford was successful with the application of a mixture of equal parts of tar and linseed oil, applied warm, not hot, early in spring. It does not continue soft, nor fill the pores, but forms a simple varnish, which becoming hard, peels off when the trees begin to grow, and carries the bark lice with it. Strong lye-water, whale oil soap and a mixture of lime, soft-soap, and water, are recommended by Elliott. We would be glad to hear the results of the latest experiments with the different remedies.

Foreign Notices.

Mr. Lawes' Wheat Crop.—We have published from year to year the amount of wheat yielded on Mr. LAWES' experimental field at Rothamsted. This field has been seeded to wheat every season for 22 years; it is divided into plots, of which, during the past 13 years one has never had any manure applied to it at all; on one 14 tons farm-yard manure have been put each year; and on three others artificial manures have been put, alike in their mineral constituents, but, unlike in the respective amount of ammonia salts they contained. The yield has been:

How manured each year.	Harvests.			Average of 13 years. 1852-1864.
	1863.	1864.	1865.	
	Bushels of Dressed Wheat per acre.			
Unmanured,	17½	16	13½	15½
Farm-yard manure, ..	44	40	37½	35½
Artificial manure, ..	53½	45½	40½	37½
Do. do.	55½	49½	43½	38½
Do. do.	55½	51½	44	35½

Other fields at Rothamsted, in the ordinary course of farm management, yielded in 1865, respectively 38, 48, 48, and 51 bushels per acre. Putting all these together, and making an estimate from the results of previous years at Rothamsted as compared with that of all England at large, Mr. Lawes expresses the decided opinion "that the wheat crop of 1865 will turn out to be, in the aggregate, little if any below an average one. And," he adds, "if we would find a period of successive seasons comparable in abundance with those of 1863, 1864, and 1865, we must go back for about thirty years, when the fairly abundant harvests of 1832 and 1833, the splendid crop of 1834, and the again abundant one of 1835, brought down the price of wheat by the end of the last mentioned year to 36s. per qr., notwithstanding the high protective duty then ruling."

Carrying Meats across the Ocean.—The London Morning Post, in the present scarcity of meats in Great Britain, and lack of sufficient supply from European countries, advocates the importation either of dressed carcasses or living animals from Canada. The case is thus stated:

"The average price per pound of butchers' meat in the markets of Quebec, Montreal, Ottawa, Kingston, Toronto, and Hamilton, in 1864, was: Beef, from 6 cents to 8 cts. per pound; mutton 5 cts. to 8 cts. per pound, and veal and pork, from 6 cts. to 10 cts. per pound. As to the practicability of bringing across the Atlantic dead meat in a marketable condition, there is little reason to apprehend difficulty, when we know that the tables on board the ocean steamers are all the year round supplied daily with fresh meat of the best quality. The average duration of the voyages of the Canadian mail steamships is between nine and ten days; and it has been ascertained that meat, when properly packed and forwarded in vessels fitted for the purpose, will keep a fortnight or three weeks. Should the first experiment of bringing to our markets live stock or dead meat from Canada prove successful, it is impossible to estimate too highly the importance of the trade, both to Canada and ourselves."

Grain and Meat.—"If the scythe were supplanted by sheep's teeth," writes Mr. Mechi, "John Bull would no longer have to complain of short supplies and dear meat. The ordinary calculation is that 7 lbs. of grain will produce 1 lb. of meat, nett butcher's weight. As wheat is under 1d per lb., and meat is at 8d to 9d, it requires no conjuror to show that feeding will pay."

Roots and Stock Raising.—The Canada Farmer well remarks:

It is impossible to keep stock advantageously without roots. This fact, and the fact also, that roots play such an important part in a judicious rotation, ought to induce more attention to them. Turnip culture has been pronounced the sheet anchor of British agriculture. It has wrought little short of a revolution in farming matters in the old country, and it will do the same here, if it can be made general. Turnips do not

require to be sown until the hurry of spring work is over, and thus a season of comparative leisure may be appropriated to this important crop. They are a pretty sure crop, and, on good land, highly productive and remunerative. In this country they cannot, as in Britain, be fed on the ground, but require storage. They, however, stand a considerable degree of cold, and keep well either in pits or moderately well-protected cellars.

Mr. Johnston's Root and Clover Crops.

MESSRS. TUCKER & SON—After a long silence, I write to say that last spring I put a fence around a small piece of land in the field on the west side of the highway as you come from Geneva. 1,880 feet I planted with mangolds. I took them up the other day, cleaned the earth from them thoroughly, weighed, and found them to weigh 2,880 lbs. Now if 1,880 feet give 2,880 lbs., what will one acre give—say 43,560 feet? I make the amount per acre, 33 tons, 730 lbs. I am not so sure in figures as I was when young, but think I am right. I allowed 2,000 lbs. to the ton. They were planted in rows 18 inches apart, and about 9 or 10 inches apart in the rows. My man John said, "Sure they would never grow that way at all—in Ireland they put the rows 30 inches apart, and 12 in the rows." Now he says he never saw more grown on so small a piece of land in Ireland itself.

I planted in the same enclosure, the same amount of land in cabbage, and a like amount in turnips. The cabbage was a partial failure, owing to the grasshoppers attacking them, and was not over half a crop. The turnips, (Swedes,) were almost a total failure; the fly attacked at first and the grasshoppers afterwards; but nothing troubled the mangolds. Mangolds are the only root crops that I can grow profitably here, (potatoes excepted.) Both last year and this, I never raised better potatoes, and none have rotted. The Chilis have always done well with me. I had some Ohio Pink-eye Rustycoats, which are an excellent kind and very prolific. The Peach Blow also does well with me. This year they gave the largest yield, but they were all the best crops I ever raised.

We have had remarkably fine weather since the last of August. I never saw more grass at this season than now. All crops were good, apples excepted—they were a very poor one hereabouts. Clover seed will be a light crop, owing to the blossoms being destroyed by the grasshoppers. I cut six acres first crop on 17th June; the second crop grew right away, and got forward early, and seeded very well—13 acres I mowed some 10 days later, that was not worth the cutting for seed. The only way to get seed in grasshopper seasons, is to cut the first crop very early; then the second crop gets in blossom before the grasshoppers are large enough to hurt it much. I took eighteen large wagon loads of hay from the six acres, and then cut at 1st September a good crop of seed that I think will give near five bushels per acre, but may not over four.

There is a great cry of scarcity of cattle, but there have more droves past here since last June, than in five years previous—a large majority of them from Canada, and of the worst class of cattle, generally, I ever saw. They surely got none of those turnips we read about—150 passed here yesterday, part of them were the best I have seen come from there.

Near Geneva, Nov. 1, 1865.

JOHN JOHNSTON.



ALBANY, N. Y., DECEMBER, 1865.

At this season of the year, the suggestion to organize FARMERS' CLUBS has been so often repeated that many are doubtless weary of all allusions to the subject. But every year there are some new readers to be reached, and circumstances change with the old, so that what is at one time impracticable, becomes more easy at another. The main end, as was said editorially in these columns, a dozen years ago, is only to excite sufficient interest to call the farmers out, and, by proper organization, to form a joint stock company with the sum total of each man's wisdom for its capital. Almost every man will have acquired something, during the past season, during the year, or, at any rate, at some time in his experience as a farmer, which has escaped his neighbors. Draw it out for the benefit of others! If there are half-a-dozen, only, who are wide awake enough to make a beginning, let them agree to come together quite informally once a week, or two or three times in the month, from now till spring, for a good farmers' talk. As the number increases there will be more need of a certain amount of form, to avoid confusion and ensure the best use of the time devoted to the purpose—which we take to be the main end of all parliamentary rules. What has been done, what has been read, the opinions and conclusions reached,—on all the wide variety of topics associated in farming,—afford salient points enough for many a winter's discussions.

It is not alone that in this way the results of practice and reading are more likely to be well digested and carefully weighed in the balance,—it is not alone that when one's deficiencies in information on any mooted point are called into notice, he is at once prompted to some effort to remove them,—it is not alone that a habit of thought is fostered and subjects of reflection supplied,—but to one whose position separates him so much from his fellows as the farmer, the mere coming into contact with them at such intervals, is of no small account in tending to lessen his isolation, and in exciting a class spirit or feeling of association, which in other pursuits so often carries weight and influence overpowering his own. The precept of the Greek philosopher, "know thyself" is one that involves the study of others; for a comparison of our views, our acquirements, our faculties, with those of persons having had very much the same opportunities as our own, enables us to estimate more accurately both the strong and the weak points we betray. And while farmer A. may return from a club meeting, rather abashed that B. or C. has excelled him in something, he may also be convinced that in another, neither of his neighbors has studied as deeply or advanced so rapidly as himself. The tendency of a good discussion is thus to strengthen a man in the right course, and to turn him from the wrong. "The member of the club is more than one individual farmer; he is one of an associate body who are pledged to each others' interests, and laboring for the greatest good of the greatest number. He is a public spirited

man, and soon learns to attach more importance to his observations, and to consider himself of more consequence in the agricultural world."

As already stated, the forms involved should be of the most simple character. A written constitution should be drawn up, specifying (1.) the name of the organization, and its object—the discussion of agricultural topics and improvement in farming at large; (2.) the sum to be paid into the treasury and other requisites to constitute a membership; (3.) the officers, generally a president, vice-president for each of the school districts or other subdivisions of the territory embraced, secretary and treasurer; (4.) the time and place of meeting—say semi-monthly in winter and monthly from April 1 to December 1; (5.) the duties of the officers and application of the funds, and, lastly, any other points on which those forming the club are agreed as essential to a proper understanding at the outset. Suitable by-laws, to promote regularity in attendance and otherwise best carry out the intent of the constitution, may be agreed upon as they are found necessary.

There are three suggestions which we think might be usefully brought to the notice of existing clubs, as well as embodied in the constitutions of new ones. The first is the holding of a spring meeting as soon as the ground is in order, for a plowing match, at which every member (or some one in his family, a son or assistant,) should agree to compete. The second is, either at the same meeting or the one preceding it, that a display of grains and other seeds to be used for planting should be made, every member again contributing—in order that the best and cleanest may receive an award or commendation, and those in want of good seed may know who has any to spare. The third is that previous to or during harvest, a committee (either of the whole club, if practicable, or any of its officers or members as appointed,) should visit the farms of the several members, and report on the same at succeeding meetings. And a fourth might be added—that more intimate relations should be cultivated with the agricultural press; that condensed reports of of the proceedings whenever of a practical nature (and this ought always to be the case,) should be sent to the nearest or best agricultural paper accessible, for publication in whole or in part, in the judgment of the editor.

Lastly, it may be observed that those who read the same agricultural paper or papers, have thus a common bond interest with one another, and many common subjects of reflection, remark and criticism. Where there are ten or twenty who take the COUNTRY GENTLEMAN for instance, within a reasonable distance of each other, why should they not come together in a sociable way as a "club" by themselves, and, as a part of their regular proceedings, bring the light of their experience to bear upon its contents, and submit the resultant critique for the benefit of others through its columns? We should be especially glad if this suggestion is anywhere carried into effect, and if a club of our subscribers so organized, should also decide upon holding a plowing match or seed show in compliance with the other suggestions above, will undertake in advance to contribute something toward the prizes on the occasion.

Tobacco Culture.—A meeting of the Connecticut Tobacco Growers' Association was held last week at Hartford,—thinly attended, however, owing mainly to lack of the necessary publicity. Resolutions were adopted in favor of the present system of collecting the Government impost upon the manufactured article, and against the proposal to levy it instead upon the raw leaf. Committees were appointed in the several towns most interested, to assist the secretary in distributing circulars and collecting statistical information. The next annual meeting was appointed for the first Wednesday in January. It was also voted to distribute a circular among tobacco growers, calling for information on the following subjects:

1. The kind of soil most successfully employed by you in obtaining a crop.
2. Your mode of preparing your bed.
3. Your mode of preparing your field for tobacco.
4. The comparative value of different kinds of manures—guano, phosphate, etc.
5. Your time and mode of transplanting.
6. Your mode of cultivation during the season.
7. Your time and mode of topping.
8. Your mode of dealing with suckers, and time of standing between topping and cutting.
9. Your mode of harvesting, hanging and curing.
10. Your mode of assorting and packing after stripping.
11. Which mode of sale affords best satisfaction? Sale in bulk, warehousing, or packing and selling at home?
12. Your mode of dealing with your seed plants.
13. Upon what soils and in what seasons is rust most prevalent?

We should be very glad if tobacco growers in this and other States would favor us with a few brief articles detailing their views on the points above specified, or any others which may seem important.

Going South—Settling in Delaware.—A correspondent sends us a statement as to the experience of several persons whom he has known, in endeavoring to make homes for themselves in Delaware, and thinks that as we have published very favorable accounts of that State, we should also permit our readers to know that this question, like others, has two sides. The substance of his letter, for which we have not room at length, is, as regards farms, that their advantages are overdrawn in the advertisements which frequently appear, and, as regards other pursuits than farming, that the people stand aloof from Northerners and will not patronize them if they can help it. The land and climate, he admits, are good. The advice he gives is that northerners should examine well any farms they think of buying, in person, rather than trust to reports from others; and that those who think of undertaking other kinds of business should first ascertain the disposition of their future neighbors toward new-comers from a higher latitude. Such advice may well be followed, of course, when a change of residence is contemplated to any distant region.

Grapes in Tompkins County.—A correspondent of that excellent periodical the Philadelphia Gardeners' Monthly, states that the shores of Cayuga Lake in the above county, are becoming a great vineyard country. One person is spoken of as intending to plant 30,000 vines next Spring, and—

"Our large-hearted Senator Cornell, who gave to our State a half a million of dollars to found a Cornell University, has begun planting a fruit farm of 3 or 400 acres on the shore of our lake. He intends to plant every variety of grape and fruit that has any reputation, to test its adaptation to our country and climate."

Trotting Horse.—The horse "Sorrel Dapper," owned by J. I. Parsons of Auburn, and which has gained much celebrity as a trotter in Cayuga county, it is said has been sold by Mr. Parsons to Robert Bonner of the New-York Ledger, for \$15,000.

Milk from an Alderney Cow.—I send you an accurate statement of the quantity of milk given by a thorough-bred Alderney cow, five years old, for 31 days. The yield I think very large for an Alderney, and I should like to know from other owners of this breed, how it compares with the yield of their cows

From May 19th to June 18th, 1865.

	Lbs.		Lbs.
May 19,	33	June 1,	33
20,	32½	2,	34
21,	32	3,	35
22,	33	4,	34
23,	35	5,	31½
24,	30½	6,	31½
25,	29½	7,	33
26,	35	8,	32
27,	32½	9,	30½
28,	34½	10,	31
29,	31½	11,	27½
30,	36	12,	33
31,	32	13,	22
June 1,	35½	14,	31
2,	34	15,	33
3,	35½	16,	31
		17,	31
		18,	33
Total yield for 31 days,		1,006 lbs.	

It may be proper to add that the feed was grass alone.
Yonkers, Westchester Co., N. Y. E. F. S.

Late Autumn Plowing.—In your issue of Oct. 19th, J. W. Clarke, Wis., writes on the subject of early and late fall plowing. Although I cannot agree with Mr. C. in all his reasoning, his facts are indisputable. Late, or perhaps I should say very late fall plowing is, in this latitude and longitude, an absolute injury to the succeeding crop, and, in all probability, a permanent injury to the land itself. But we must never forget, on this topic, that the variety or kind of soil, as well as the latitude and climate, must be taken into the account. I hope Mr. C. will write more, and give us his notions of mixing and comminution of soils.

Flowerdale Farm, Ill.

G. W. M.

Bone Mill.—Paschall Morris' Rural Advertiser for October, has a cut and description of Bogardus' bone mill, of which several are in successful operation in that city and vicinity. It is said to be "the only mill in the market, capable of grinding the raw bone. There are two sizes of these mills. No. 2 weighs about 600 lbs., is calculated for a two-horse tread power, and is capable of making out of unboiled and unburned bone a barrel of bone dust in twelve minutes. Price in Philadelphia, \$215. The large mill, No. 5, is adapted for a four-horse power, and will make a barrel of bone dust in six minutes. It weighs 1,600 lbs., and costs in Philadelphia \$510. Extra plates can be furnished for grinding corn and cob."

Filling an Ice House.—The Utica Herald says that the ice-house of L. R. Lyon of Lyon's Falls, N. Y., has not been empty for twenty years, nor has a pound of ice ever been put into it. The building is constructed after the ordinary method, and when it is designed to fill it, a rose jet is placed upon the water-pipe, and as the water comes through it is chilled and drops into the ice-house, where it forms one solid mass of ice.

Cotswold Sheep.—The demand for sheep of this breed, we are informed has been unusually large the present season. Mr. E. GAZLEY of Dutchess County, some of whose sales we have heretofore noticed, and who took several first prizes at the Albany County Fair, has lately disposed of six head to Almon W. Griswold of New-York, who intends trying them on his farm in the State of Vermont—also of a ram and three ewes to F. H. Hibbard of Cortland County.

Honey.—Jean Storms, of Pantou, Vt., a bee hunter, obtained recently from one tree, 310 pounds of wild honey.

Agricultural Fairs as Educators.—State and County Fairs have contributed largely to the rapid progress of agricultural improvement throughout the country. Hundreds of thousands have visited them, and have there seen specimens of this progress. They have there learned that their own animals, which they had before confidently believed could not be beaten in the whole land, are left quite in the shade by many which they find on the grounds. Emulation and enterprise are excited, and a rapid improvement takes place everywhere. The same result occurs with implements, domestic manufactures, and farm products generally. In short, the very best farmers—those whose enterprise and skill have placed them far in advance of the majority—here exhibit what the best management can accomplish. These exhibitions thus become places of great interest to those who are determined to secure the best advantages; and young people, especially, long remember the lessons they have thus learned, and treasure up with delight the remembrance of what they have witnessed. Fairs thus become powerful educators. Whatever they see that is of an exalting and improving nature, thus elevates the character of the rising people. On the other hand, if anything is admitted that is low and degrading, a corresponding and even greater influence is exerted for evil.

If county fairs make horse racing their chief attraction, young men and boys who attend, will come up as horse-racers—and cigars, drinking, and dissipation will follow. In this way, these public occasions may become positive nuisances. Instead of elevating, they may tend to lead the people directly downwards. If a fair cannot be maintained without resorting to debasing influences to fill treasuries, it would be much better not to have any, for no pecuniary prosperity can compensate the loss of public morals.

But county fairs have not been alone at fault in this matter. Two or more State fairs have admitted to their grounds the present autumn, and have thus indirectly endorsed, exhibitions of fat women, distorted men, idiots as wild men, jugglers, and worst of all, gambling tables. On the grounds of one of the fairs recently held, we counted no less than six of these gambling establishments, within a circuit of five rods; with a false show of fairness, they swindled almost without a possibility of escape, all the ignorant who were allured by the cunning and infamous decoys hovering around them. We were assured that a single table of this kind had "made" in one day, no less than six hundred dollars out of the ignorant—and this by the direct cognizance and approval of a State Agricultural Society. We are aware that some, perhaps most of the officers, were opposed to this low business, and that we shall afford them a mite of assistance towards excluding them in future, by these remarks. We ask the few who admitted them, wherein it would be worse to license half a dozen pickpockets and turn them loose in the midst of the crowd—among those who, like the stakers of money at the table, were so indiscreet as to tempt these pickpockets by carrying money about their persons?

It was said that these shows if admitted, would draw many into the grounds, and the Society would profit by their admission fees—otherwise they would fix themselves without the enclosure, and draw the people away from the fair. If the local government could not suppress them wholly, and drive them from the neighborhood, as they have done in many places, the case might seem a hard one. But if a State Fair cannot be sustained without mixing up public demoralizers in the shape of gambling establishments, and shows of a low character, with the exhibition of such articles as tend to elevate and improve the community by improving its

agriculture, it would be better not to hold a fair which shall make the degradation of morals one of its necessary objects.

Sale of Ayrshires and Jerseys.—The sale of the Ayrshire herd of H. N. THURBER, Pomfret, and the Jersey herd of JOHN GILES, South Woodstock, took place Oct. 18, at the farm of the latter gentleman as advertised. From the report in the Boston Plowman, we make up the following abstract of results:

AYRSHIRES SOLD.

Name.	Age.	Purchaser.	Price.
1. Jean Armour, 9 years,		H. C. Gregory, Unadilla, N. Y.,	\$175
2. Duchess 2d, 8 years,		M. Willard, Providence, R. I.,	375
3. Susan, 9 years,		H. C. Gregory,	180
4. Rosa, 9 years,		—, Dresden, Me.,	155
5. Brenda, 8 years,		H. N. Thurber,	125
6. Dewdrop, —,		J. S. Barstow, S. Portsmouth, R. I.,	150
7. Pink, 3 years,		do. do.	160
8. Beauty, 3 years,		B. Harrington, Worcester, Mass.,	140
9. Cora, 4 years,		H. C. Gregory,	210
10. Polly, 4 years,		S. Converse, New Braintree, Mass.,	275
11. Effie, 3 years,		—,	280
12. Jeanie, 3 years,		Mrs. H. N. Thurber,	90
13. Leila, 3 years,		J. S. Barstow,	200
14. Beatrice, 1 year,		H. C. Gregory,	95
15. Nell Gwynn, 1 year,		D. Winsor, Johnson, R. I.,	75
16. Britannia, 1 year,		do. do.	100
17 and 18. Withdrawn—no bidders.			
19. Strawberry 3d, calf,		O. H. Perry, New-York city,	75
20. Hebe 3d, 8 years,		M. Pollard, N. Braintree, Mass.,	100
21. Hebe 4, calf,		O. H. Perry,	55
22. Floris, calf,		E. D. Pearce, Providence,	80
Bull Harold, 5 years,		Martin Willard,	125
— Ossian, 1 year,		do.	100
— Sinclair, 6 months,		H. C. Gregory,	100
— Rollin, 6 months,		F. Averill, Pomfret,	80
— Ozilby, 6 months,		John Dimon, Stonington,	55
— Dalfill, 3 months,		H. C. Gregory,	55

The sale was conducted by J. R. PAGE. The first five on the list were purchased by Mr. Thurber last spring at the sale of H. H. Peters, respectively for \$400, 405, 350, 165 and 145—being considerably higher prices than they brought now—partly owing, probably, to the season of the year, and partly to their condition. The Plowman says: "They had been in milk through the summer, and had evidently suffered from the drouth, few of them being in more than ordinary condition, and many of them below that. Few of them had been halter broken, as they should have been to pass such an ordeal satisfactorily, and this added to the disadvantage under which they appeared."

We have so often had occasion to remark the drawback occasioned at sales of otherwise valuable animals, from these causes—lack of condition and lack of care in halter-breaking, that it is not out of place here to urge, what one would think common sense alone might dictate,—the fact that *first class prices* can never be obtained where animals are half-wild and half-starved. Above all things, any breeder of good stock owes to them and to his own reputation, at least that they should be kindly cared for, by himself or by a competent herdsman, so that they will stand for examination;—without such evidence of gentle treatment, bidders are always shy, even when willing to make ample allowance for lack of flesh, where, as in the present instance, the season has been dry and pasturage poor. Under these circumstances, the prices above named are certainly very creditable to the breed, although low in comparison with those obtained by Mr. Peters.

As to the remainder of the sale, our contemporary remarks:

The sale of Jerseys was remarkable from the fact that all the pure bred cows went to one man, William B. Dinsmore, Esq., of Staatsburg, near Hyde Park, N. Y., President of the Adams Express Co. The highest went at \$350, for a cow 3 years old, and others at \$310, \$300, \$300, \$255, \$225, and so on. A yearling heifer brought \$160, and a few grades from \$75 to \$150. A pure-bred spring's calf sold to H. C. Gregory at \$105. Two others went for \$95 apiece, another for \$80, and a bull calf at \$50. The Jerseys sold high as compared with the Ayrshires. They were not so uniform in color and quality as the

Ayrshires, and there were fewer that were desirable for founding a herd of that breed.

Mr. Giles has been a noted breeder of poultry, etc., for many years. We took a look around his grounds to examine the geese and ducks, the beautiful golden and silver pheasants, the Black Spanish and other fowls that were strutting about there, and, after partaking of the ample hospitalities of the place, where the latch string is always out, left under the impression that we had had a real good time and a profitable visit.

Extensive Vineyards.—The interest now awakened in vineyard culture on this side the Atlantic, is illustrated in one or two paragraphs from our last week's exchanges. One of these states that a company at Cooksville, Canada West, have now about forty acres under the grape, and expect to extend the area largely another season. They are just constructing a wine cellar, having "34 arched recesses, in two tiers, each recess to contain a hogshead of 1,000 gallons capacity. These 34 hogsheads, it is said, will be filled with the production of this season's fruit. We understand that another hogshead is in course of construction, which of itself is to contain 24,000 gallons."

Another statement in circulation is to the effect that a joint stock company, with a capital of a quarter of a million of dollars, has been formed in Wheeling, West Virginia, for the purpose of entering largely into the grape-growing business. "The land to be worked is on the Ohio side of the river, near Martinsville, and 50 acres of it are already under cultivation. It is designed to increase the size of the working land to 115 acres."

State Implement Trial.—An Auburn paper is sent us containing a model report on the last exhibition of the Agricultural Society of Cayuga county—reviewing the different departments, and especially the very important one of Implements, at length, with descriptions of those attracting particular attention. The committee then proceed to refer to the Trial of Implements and Machinery to be held by the State Agricultural Society next year, and urge the necessary action to secure its location at Auburn, both on account of the extent of its implement-making interests, its central position, and the facilities it affords for securing the necessary trial fields.

"The simple facts that the Mower and Reaper Manufacturing business of the city of Auburn requires a capital in conducting it of about three million dollars, to say nothing of the permanent investment in buildings, machinery, and stock held over, which would aggregate in the neighborhood of about one million dollars more; also, that Fourteen Thousand Reaper and Mower Machines were produced the present season in Auburn—their production furnishing employment to from six to eight hundred men, and supplying the means of living to from three to four thousand of the population of the city; we regard as a significant iteration of the claims of Auburn to the honor of the Great Exhibition and Trial, and one that will exert its due influence with the Board of Managers of the State Agricultural Society, in determining the question of its location."

Worden's Seedling Potato.—I have sent to-day by express a box of my seedling potato, the third year from the ball. They are long, smooth, light red, fine grained, white flesh, and excellent flavor, both for boiling and baking, and also prolific, and a healthy grower—a few days later than Davis' Seedling. They were grown on a light loamy soil, not rich. All of my potatoes suffered with the drouth. My seedling, being strong rooted, suffered the least of any. I have been experimenting more or less with the seed-balls ever since the rot was first known with us, believing they must be renewed from the ball. I never have grown any I considered worthy of cultivation but those I send you. The specimens are from medium to large; some

of the largest are 10 inches in length. If they should prove good on all kinds of soil, they must be a valuable addition to our varieties.

SCHUYLER WORDEN.

Minetto, N. Y., Nov. 18.

Exports of American Agriculture.—The tables which we publish from time to time of agricultural exports from the port of New York, do not cover the whole ground, although comprising the principal part of our farm productions sent abroad. The official tables, including values as well as quantities, are always a twelvemonth or more behind, and, indeed, have only just appeared for the year ending June 30, 1864. For that year, the total value of our agricultural exports was \$150,457,784, against \$180,661,526 for the year ending June 30, 1863, and \$138,171,984 for that ending June 30, 1862. That the relative importance of our agriculture to other pursuits, in sustaining our foreign commerce, may be shown, we may state that of our total exports for the year ending June 1, 1864, there were, in money values—

Animal products of the Farm,	\$51,118,647
Vegetable food	64,560,664
Cotton, tobacco, hops, seeds, &c.	34,778,473

Total produce of AGRICULTURE	\$150,457,784
Total Manufactures of all kinds	37,416,271
Total product of the Sea and Forest	14,649,016
Petroleum, coal and sundries	17,024,636
Gold and Silver, in coin and bullion	100,473,562

Of our Agricultural exports for the year referred to, the heaviest items in round numbers were 57 millions dollars worth of wheat and wheat flour; 30 millions dollars worth of pork, hams, bacon and lard; 23 millions in tobacco, 10 millions in cotton, 6 millions in butter, $5\frac{1}{4}$ in cheese, 6 in tallow, and $3\frac{1}{8}$ in Indian corn. The tables for the succeeding year, ending June 30, 1865, will probably show a reduction in several of these important items.

Countermanded.—The herdsman of Hon. EZRA CORNELL, who lately went to England with the bull 3d Lord Oxford, purchased by C. W. HARVEY, Esq., of Liverpool, was to procure several valuable short horn heifers, if successful in finding for sale such as would really be an acquisition for Mr. Cornell's herd. But we learn that Mr. C. has now countermanded the order, fearing, in the present diffusion of the cattle plague throughout Great Britain, that any importation, however carefully selected, might possibly prove instrumental in introducing that disease here. This is only the exercise of a wise precaution, and we should be glad to have all importations of live stock prohibited by the Government, until danger has entirely disappeared.

Product of another Alderney Cow.—I noticed in your issue of Oct. 19, an account of the weight of milk given by an Alderney cow in one month, and the writer asks how it compares with others of the same breed.

I have an Alderney, which I imported when a calf of four months old, seven years since; and although I am unable to give the weight of milk for any single month, yet I can give the exact result of milk and butter for one year, from March 1, 1864, to March 1, 1865.

The cow came in on the 3d of March, and raised the calf until five weeks old. Churned during the year, 351 lbs. butter, and used for family purposes 525 quarts of milk.

There was no effort made for an extra result. During the pasture season she had grass only, and when in stall plenty of hay and wheat bran, and good care.

New-Rochelle, Nov. 2, 1865.

P. E. LE FEVRE.

Devon Sales.—Capt. JOS. HILTON, New-Scotland, Albany Co., has lately sold the bull-calf "Otsego" and heifer "Red Rose" to Mr. Jas. M. Rockwell, Butter-nuts, Otsego Co., and the yearling bull "Captain" to Francis Miller, Central Bridge, Schoharie Co.

Inquiries and Answers.

Raising Root Crops.—In your paper please give me a short account of the difference in the expense of raising turnips, beets and carrots for dairy use, and which is best adapted for that purpose? J. V. R. *Seneca Falls, N. Y.* [The cost of raising these three crops scarcely differs in each case. Much depends on the condition of the soil and its freedom from the seeds of weeds. Land which has been kept clean, or which has been repeatedly plowed or harrowed, so as to destroy foul stuff, will yield a crop at far less expense than one which requires constant hoeing or hand-weeding to remove intruders. No weed should ever be allowed to reach more than an inch in height. Unskillful farmers, who allow weeds to grow six inches or a foot, fail in these crops and pronounce them a humbug. Ruta bagas usually succeed best on light or medium loams, and beets on strong or heavy soils. Carrots require a deep, loose soil, and for all the three it should be highly enriched or fertile. Ruta bagas are less sensitive to frost, and are hence more easily kept in winter. They are excellent for feeding store and fattening animals, but impart an unpleasant taste to milk and butter when given to milch cows. Beets and carrots are more suitable than the latter. The carrot seems to be the most nutritive and valuable of the three, and is excellent for feeding horses and dairy animals. Farmers should give more attention to the cultivation of root crops on an extensive scale; and will do so when they understand how easily they are raised after the ground has been thoroughly cleaned of the seeds of weeds, and when they have provided spacious and convenient cellars for storing them. Unless these two indispensable provisions are attended to, it is hardly worth while to begin their cultivation.]

Curing Poison of Ivy.—Cannot you or some of your numerous correspondents or readers, render myself and others a benefit by publishing in the Co. GENT. a course of treatment, which is known to be satisfactory, in cases of poisoning by swamp sumac or poison ivy? Four of my hands and self have alternately been sufferers while clearing off a small piece of low land. We find lead water and a solution of copperas relieving, but only for a time, and not at all proof against its spreading, and continuing to annoy us for several days. I think there must be a remedy that will relieve immediate pain, and arrest further spreading of the affection. S. L. A. *Cinnaminson, N. J.* [We know of no efficient and perfect remedy for this kind of poisoning. Will some of our readers give us a good one? We may remark that there is a great difference in the effects of this poison on different individuals, and a good remedy for one may be insufficient for another. Many persons are poisoned by the slightest touch, while others can handle it freely, with perfect impunity. Kalm, the celebrated Swedish botanist, could bear the juice of the poison sumac (*Rhus toxicodendron*) squirted into his eyes without inconvenience; while his sister was affected and poisoned when she came within three feet of the plant.]

Keeping Eggs through the Summer.—Will you be kind enough to inform me if eggs laid in the spring can be kept till fall, and what method is best to keep them so as to sell them to the best advantage? A SUBSCRIBER. [Eggs may be kept in a cool place for months by placing them on end, either on perforated shelves made for the purpose, the holes being slightly smaller than the eggs, so as to hold them without tipping; or by packing them in salt, chaff, sawdust, &c., in the same position. It was formerly the belief of housekeepers that the small end must be down; but later experiments prove that they will keep well on either end.]

Farm Gates.—I am much pleased with that department of your paper headed "Inquiries and Answers." It has been very useful to me, as I generally find my wants shadowed forth by some brother farmer, who wants light on the same or some similar subject. Part of my trouble at this time, is gates. I find it necessary at present to make about twenty, the old ones having become rotten in nine or ten years. Perhaps they were badly constructed. The slats or bars and braces, are hemlock; the head and heel pieces, oak, with braces from heel to head on each side. The bars or slats rotted between the braces, and the gates fell in two parts. This rotting was caused by the braces holding water and keeping the slats moist. What is the best remedy? The gate called Robinson, seems to be good, but I do not understand that hinge part called a collar—its size, or how it is made fast to the gate. I think

you explained in a former number of the REGISTER, but some person or persons have gotten some of my numbers, and I cannot refer to them. J. M. *Bullitt Co., Ky.* [Former numbers of the ILLUSTRATED ANNUAL REGISTER contain several good designs for gates. The collar in the Robinson gate should be made of two inch hard tough plank, and being cut so as to fit the gate, as shown in the figure, is easily secured to its place by bolts or nails. Gates will last much longer if every place where two pieces of wood come in contact, is well soaked after thorough seasoning with hot gas tar. It is especially useful in mortices. If gas tar cannot be had, common paint, or even strong fresh lime wash, will be of great use. A cheap, light, and handsome farm gate may be made of the panels of Haynes' portable fence, figured in a late number of the Co. GENT.]

Horse Powers.—I want to get a two-horse power, for sawing wood and various other purposes, and would be much obliged if some person or persons that know, would state in your columns, the best railroad or sweep power for the purposes mentioned, taking into consideration the ease of team. J. M. *Bullitt Co., Ky.* [The Railroad or Endless-chain Horse powers, are the most portable, compact, and best adapted for this purpose. Among those which are well made, and have stood the test of trial, are those of Wheeler, Emery, Westinghouse and Harder.]

Bound Volumes.—W., *New-Brunswick.* We can send you the COUNTRY GENTLEMAN in Numbers from Jan. 1 to July 1, 1865, for \$1.75. The volumes of THE CULTIVATOR we can furnish bound from 1852 to the present time, excepting 1858 and 1862, bound, by mail postpaid, at \$1.75 each, or by express, freight from Boston at your expense, at \$1.50 each.

Warts on Cows' Teats.—In reply to request in No. 15, Co. GENT.: Take fresh butter (unsalted;) add an equal amount of sharp vinegar; simmer together, and apply with a brush or the hand. It will kill them so effectually that they will drop off in a few days. I have tried the above to my satisfaction. Warts on cattle, however large, may be removed by this process without any injury. IOWA.

Pickling Onions.—Noticing an inquiry in the Co. GENT. of Oct. 26, for a recipe for pickling onions, I give the following rule: Peel the onions, and soak 48 hours in salt and water, and change once in the time. Then place them in a jar—take vinegar enough to cover them—put it in a kettle—add cinnamon and cloves to suit the taste—then let it come to a boiling heat—set it away until cold, and then pour it on to the onions and set away till ready for use. L. C.

Covering Strawberries.—"What is the best material to cover tender strawberries for winter?" inquires a correspondent. Answer—evergreen boughs or cornstalks. Rye straw does pretty well. But other kinds of straw become wet and flattened down under snow, and are apt to smother the plants. The two first named substances are never liable to this difficulty. Well established beds, of known hardy sorts, will need little covering in most places, except a thin coating of coarse manure, which washes into the ground, and enriches the bed. But newly set plants, transplanted late in summer or in autumn, cannot endure winter so well, and should be covered.

Potatoes for Heavy Soils.—Can you or some of your correspondents, tell me what varieties of potatoes will do best and be best on clay soil, and particularly, which of the Goodrich potatoes are best to plant on such soil—reference being had as well to the yield and the quality of the potato when grown, as to the liability to decay? A SUBSCRIBER. [Of the Goodrich varieties we have found the three lately introduced sorts, namely, the Early Goodrich, the Gleason, and the Calico, to succeed well on heavy soil, and prove of good quality. None of these have as yet shown a liability to decay; all have been productive, the first named rather the most so. The Garnet Chili has also succeeded well, and been healthy and productive—but hardly equal in quality. The Peach-Blow, Prince Albert, and Buckeye, are well known sorts that have succeeded well on heavy soils.]

Long Island Farming.—Will some practical farmer on the Island, give us an account of it as generally practiced there? How does wheat, corn and oats, and clover do, generally? I don't wish to learn of a general average of 40 bushels of wheat, and 100 of corn, etc., by some "far better farmer than his neighbors." But let some practical man give us his figures. What is the price of average farms, not the best—merely fair farms? WESTERN NEW-YORK.

Plaster.—Can you or any of your readers give information as to the best quality of plaster found in the central or western part of this State? From whom can it be ordered? and at what price per ton or barrel? Will any one of your correspondents also give any facts relative to the beneficial results from the use of plaster, and the quantity applied to the acre? A. P. C. [Excellent plaster is procured from several parts in Western New York. The Cayuga plaster, which is quarried extensively at Union Springs, on Cayuga Lake, has a high reputation for excellence. It is ground and furnished in large quantities by R. B. Howland & Co., of that place, but we do not know the present price. It is shipped extensively from there both by the Erie Canal, which connects with the lake, and by railroad. We have tried this plaster and found it to be a valuable manure for clover, particularly on light soils. In one instance it nearly doubled the crop, as compared with unplastered clover alongside. A bushel or a bushel and a half per acre is found to be as efficient as any larger quantity. It should be sown early in spring.]

Grapes for Wine Making.—I desire to commence the cultivation of the grape on a large scale for the purpose of wine making, and will thank you to give me a few plain, practical directions, commencing with the kind of soil best adapted, manner of preparing it, how set out, names of best varieties adapted for my purpose, and such other information as to enable me to start intelligently. A. CIPPERLY, *Saratoga Co., N. Y.* [We are unable to answer this inquiry in full; some of our vineyard men, we trust, will supply the deficiency. There are few soils that are perfectly adapted to vineyard culture without thorough underdraining. Soils with gravelly bottom usually do well, but a large portion of clay is an advantage. Much manure is a detriment. The vineyard soil on the borders of Crooked Lake is probably as perfect as any that can be found; it is strong and clayey, but has a perfect drainage in consequence of the broken fragments of rock diffused all through it. The Delaware and Diana are among the best wine grapes, and the Catawba has stood pre-eminent; but we should prefer selling the fresh fruit in market. The distance asunder for planting should be at least 12 feet. A greater distance would be better when the vines become older. Our correspondent should procure Phin's and Fuller's treatises, both of which can be had at this office.]

Distance for Pear Trees.—Could you inform me the distance to plant standard pear trees on two acres? W. E. [Pear trees vary in size, with the variety, and with fertility of soil and treatment. The usual distance for planting, however, is about 20 feet; but where land is plenty we should prefer 25 feet, as giving more space for the extension of the roots, and for the admission of light and air to the trees. Where the object is to make the most of the land, they may be placed as near as even 16 or 18 feet, and will not interfere with each other for many years.]

Gleason Potato.—I wish you to give a description of the Gleason potato, particularly the color. H. *Kentucky.* [The Gleason was described by the late C. E. Goodrich, as follows: "Longish, rusty, coppery; leaves and vines, dark green; flowers, white." The skin is rough—the flesh becomes perfectly white when cooked.]

Tan-Bark—Coal Ashes.—Will spent tan-bark—hemlock—if used for bedding cattle, and mixed with the manure, be injurious to the soil and growing crops? Will it rot when plowed in, or will it remain as sound and be as lasting as the national debt? I would also like to know whether coal ashes are beneficial or injurious to land, when mixed with the manure heap. They are a first rate absorbent, if used when dry. Are they worth the labor of drawing one mile, to put on to land? Is there much lime in coal ashes? J. L. R. *Jeff. Co., N. Y.* [Spent tan-bark fresh from the vats, would probably do more harm than good, unless very sparingly applied. After decaying several years it would doubtless be useful to heavy soils as a loosener, and it serves well for mulching. Coal ashes are nearly all earthy matter, but they contain some potash, partly derived from the wood used in kindling, and a small quantity of other fertilizing ingredients. They are doubtless worth drawing a mile. If not allowed to become wet, they are an admirable absorbent for vaults, stables, and cattle-yards. They may be applied quite largely to land without injury.]

Northern Spy Apple.—I see it stated the Northern Spy apple is 10 or 15 years coming into bearing. I set some in orchard this spring, one year from bud, and have some old

seedling trees in same orchard. If I cut off the top of the seedlings this spring, and graft them with the Spy, how long before the latter will bear? Will it hurry them up any? A. E. T. *Hannibal, Mo.* [Grafting large trees will usually give from the grafts in less than half the time required from newly transplanted young trees. The Spy is not always so tardy as our correspondent indicates—we have had eight bushels from a young tree the ninth year from setting out, but this was unusual, and the tree was not neglected.]

How to Destroy the Dewberry.—One of your correspondents inquires how to get rid of the Dewberry (briars.) We are troubled with them here. One tells me, to pasture with sheep. I tried it, and my sheep were likely to starve. Another says, tend the ground in corn. I tried that, broke up the ground, took off two crops of corn, a crop of rye, and set in grass; with the grass the briars came up worse than they were before the ground was first broken up; but I find that where I have got my ground improved so as to produce two to three tons of hay to the acre, the briars have disappeared, and I have come to the conclusion that enrich the land and we will get rid of them. M. W. B. *Hancock, Mass.*

Ayrshire Cattle.—A Montreal correspondent writes to inquire as to the demand for cattle of this breed, stating that he has a number imported by himself, which, with their descendants, he is now willing to dispose of at a fair price. So far as we are able to judge, the inquiry for really good Ayrshires was never better than at the present time, and we should risk little in predicting a ready sale for those referred to if properly advertised in our columns, and of such merit as to bear out the character given them. It would probably be better to fix a price in "greenbacks" than to name it in gold, unless, indeed, a purchaser was found for the whole in one lot, so situated as to render it convenient for him to procure and ship the amount agreed upon in specie.

DISPOSING OF GRAIN.

There are doubtless few questions which have been more seriously considered by farmers than, will it pay best to sell their grain or to dispose of it by feeding it to stock? Where a farmer can obtain market price for his grain by feeding it, in the increased value of the stock when sold, or in the improved quantity and quality of milk, it is decidedly the better plan to do so, for not only is he saved the trouble and expense of hauling it away, but the value of the manure produced is much greater, and this is a point that may well be considered, in estimating the return of the grain consumed.

There are many farmers who find it necessary to purchase a certain quantity of patent manure every year, when by feeding their grain this could either be dispensed with or the quantity greatly lessened. But the point to which I would particularly call the attention of farmers is this: Meat of all kinds is unusually high—as high as at any time during the war. This is generally supposed to be owing to the scarcity of stock in the country, caused by the immense number of young animals killed during the war; but whether owing to this cause or the combinations of speculators, it is undoubtedly a fact, nor does there appear any prospect of the price falling.

In view of this fact, would it not be well for farmers to consider the advisability of feeding as much of their grain as possible, especially as corn, &c., has fallen so greatly in value. A miller accustomed to feeding a large number of hogs yearly, informed me that when pork is fourteen dollars a cwt., it will pay to feed corn at a dollar a bushel; but pork is now worth eighteen dollars a hundred, and corn less than a dollar a bushel. Consequently a large margin is left for profit. J. S. *Near Moorestown, N. J.*

CARE OF NEWLY SET TREES.

Many orchards have been set out during the present autumn. Trees set at this season of the year do well, and get an early start in spring, provided the necessary care is taken to protect them during winter. If they are placed on a dry soil, or rather on a soil with a dry bottom, and sheltered from winds, they can be scarcely injured; but where the reverse is the case, special pains should be taken to guard them from harm. One of the most common evils is from the action of the winds upon them, bending or whipping them about, and forming a hole about the foot of the stem, admitting air, drying the roots by exposing them to the air, and often producing the death of the tree. One mode of guarding against this disaster, is to stake the tree, as in fig. 1, where bands of rye straw or bass are best to prevent chafing or cutting the bark, which would result from the use of cords. To prevent injury to the roots in driving the stake, it is safest and best to drive it in the bottom of the hole after or before the tree is placed in it, and before the earth is filled in. Staking should be adopted where the trees



Fig. 1.



Fig. 2.

are rather large, and when especially the roots have been too much cut with the spade in taking up in the nursery, as is too frequently the case. Where, however, the roots are good, and the tree is of moderate size, banking up around the stem, as shown in fig. 2, answers an excellent purpose. The little mound here represented, not only stiffens the tree against the wind, but covers and protects the roots from freezing. Such a covering, to some extent, is useful even when trees are staked, as already described. If the mound is surmounted with a sod or piece of turf, fitted around the stem, it will assist in keeping the tree to its place, and prevent the mound from washing down by rains. It is essential that the mound itself be made of mellow, compact earth, and not of turf or sods; otherwise it will only serve as a shelter for mice, and do more harm than good. But if compact and smooth, it will serve as a perfect protection from these animals in all cases, as they will never ascend fresh, smooth earth under snow. A case occurred where a planter lost most of his trees by first planting them in sod ground, (a thing which should never be done,) and then turning up inverted turf against each tree. The mice were perfectly suited by this arrangement, and creeping under the inverted turf, girdled the trees to their entire satisfaction. The owner was convinced that cultivating the ground and embanking, "were humbugs."

Trees should never be transplanted where the soil and subsoil are naturally liable to be water soaked. Soils with a naturally dry bottom are best; and next

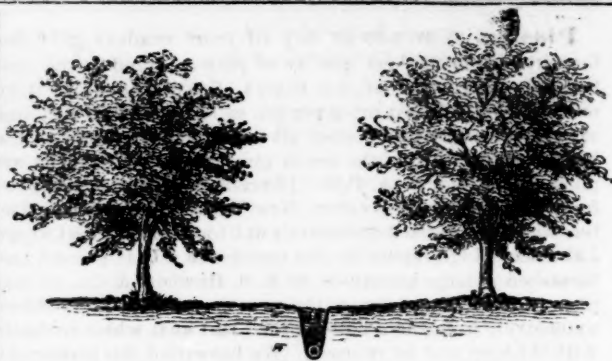


Fig. 3.

to these are those that are well underdrained. The underdraining, if not already done, may still be performed between the rows of the trees. It is not too late, even after the trees have attained considerable size, if they have not been already ruined by water and will often greatly improve the orchard; the mode is shown in fig. 3.

Young orchards set on good land are sometimes liable to injury from surface water, when heavy rains occur just before freezing up. The only care needed is to provide channels for the ready escape of the water. Heavy soils which hold water in the holes like a tub, must be provided with sufficient drainage from the holes in which the trees are set, or, becoming heavily charged with surface water, the roots may become encased in solid ice, and be badly injured. Furrows plowed from hole to hole, down the slope of the land, as deep as the holes, and filled partly with brush or cornstalks, will allow the water to soak away.

Keeping Apples in Barrels.—We wish to obtain information from such of our readers as have had experience in relation to the relative merits of keeping apples barreled up tight, with the air excluded, compared with leaving them open and exposed freely to the air. Some have maintained that by heading up the barrels a more uniform temperature is preserved, and that they otherwise keep better by excluding currents of air. Others as confidently assert that confined air and moisture injure the quality of the fruit, and that if it becomes necessary to head them up in barrels, holes should be bored into them. Without entering into any reasoning or theory upon the subject, we would like a statement of the experience of those who have given both modes a full and fair trial.

It is of course obvious to every one, that a cool and rather dry atmosphere will contribute to long keeping and the preservation of a good condition of the fruit. In testing the two modes, therefore, it is important that these two requisites be observed.

Market Fairs.—The establishment of these "institutions" has been frequently mooted here, and it seems difficult to understand why they are not undertaken at many of the principal villages and towns throughout the country. They are very successful in Canada West. A Guelph paper, for instance, announces a new one, as follows, at a point which seems to afford no greater advantages for such a gathering than hundreds that might be selected in the principal farming districts of the United States:

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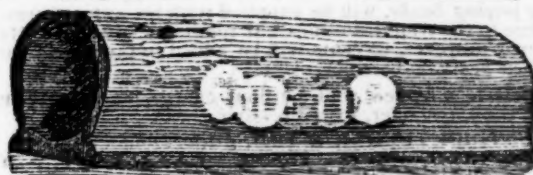
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